

From ab4el.com Wed Jun 22 14:27:34 1994
From: prvalko <prvalko@Vela.ACS.Oakland.Edu>
Subject: (fwd) Dummy load as antenna? Yup!

Path: news1.oakland.edu!newsxfer.itd.umich.edu!europa.eng.gtefsd.com!
news.umbc.edu!haven.umd.edu!cville-srv.wam.umd.edu!ham
From: ham@wam.umd.edu (Scott Richard Rosenfeld)
Newsgroups: rec.radio.amateur.misc
Subject: Dummy load as antenna? Yup!
Date: 22 Jun 1994 15:44:44 GMT
Organization: University of Maryland College Park
Lines: 26
Distribution: usa, na, dc, md, va
Message-ID: <2u9m9c\$4mn@cville-srv.wam.umd.edu>
NNTP-Posting-Host: rac3.wam.umd.edu
Keywords: dummy, dummy, dummy

Ever wonder just how much RF a dummy load radiates?

I was trying out a Yaesu FT-707/FC-707 setup with a dummy load for my parents-in-law, seeing what the alignment was like, and seeing what kind of power I could put out. Of course, I was transmitting into the FC-707's built-in dummy load.

I went tuning around, and here's somebody at S9 + 20! On the dummy load! So I waited for him to finish with his QSO, and xmitted into the dummy load at about 25 watts, and not surprisingly, he answered, and we had a nice qso.

Turns out has was N3CAU, a ham living about 800 feet from my house. Even when he throttled down to 25 watts, he was still a strong S9. We exchanged cards by hand a couple of days later.

We've vowed to try it again at 1 watt or so, and this time I want to try it into the Heathkit Cantenna...

Scott NF3I

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73,

	-----	-----	The
	\ /	Long	Original
Scott Rosenfeld	Amateur Radio NF3I	Burtonsville, MD	Live \$5.00
WAC-CW/SSB	WAS DXCC - 125 QSLed on dipoles	-----	Dipoles! Antenna!

From ab4el.com Tue Jun 21 23:01:22 1994
From: "Henry T. Rand Jr." (FSAC-AAD) <rrand@PICA.ARMY.MIL>
Subject: 2m E skip QRP

I came home from work today and hooked up the 2m packet station. There hasn't been much exciting DX recently so I didn't expect to see anything of interest. I left the screen and when I returned a few hours later there were two hours of 2m sporadic E callouts! One small problem though, I had taken down my 7 and 15 element 2 meter beams to make room for the 40m yagi. What to do? I still had a multiband trapped vertical for 6/2/440 on the top of the tower. I just use it for local FM QSO's. Would I even hear 2m E skip with it? I figured that would be enough. I tuned the band and heard three 5 district stations. Most were on SSB but there were a few on CW. I called on SSB to no avail. I quickly found a key to hook up to the 2m rig and called on CW. No luck. I found a station, WA5WXD. He was peaking fairly strong. Quickly, I called him and he came right back! Some LID called on top of me when I replied with my grid and he didn't copy it and then he faded. I kept calling and a few minutes later he peaked again and received my grid square and the QSO was complete.

So, I made my first 2m E skip QSO using 5 watts CW and a multiband trapped vertical up about 65 feet. He was located in LA and I am in NJ. Pretty good haul for 2m. Who says you need a beam for E skip. It sure would have helped though. Great opening and the thrill of the month on the bands for me.

Randy Rand AA2U

rrand@pica.army.mil

From ab4el.com Fri Jun 24 15:51:08 1994
From: Frank.Milos@East.Sun.COM (Frank Milos - Sun USOPS CSU Manufacturing Engineering)
Subject: 40 Meters & the Cloud Warmer

Well, little league, cub scouts and boy scouts have wound down for the year. Vacation is looming in front of me and I thought I would check out the OHR HP-QRP xcvr for 40M. I built it a while ago but never had a chance to get it on the air.

Tuesday night, 9:30PM...Wiped off the 12v, 6Ah battery and hooked it up to the rig. Dusted off the Vibroplex bug, attached the 80 M horizontal loop and fired it up on the low end of 40 M... band must be dead by now. Got to remember to listen on the low side of the zero beat for a DC rcvr. Well, I won't work anything, I got the cloud warmer antenna. Wait, OM3THR is calling CQ. Gave him a call. Got him on the 2nd try.

Wednesday night, 9:40PM...what's cooking on 40. X5EBL calling CQ and no one going back to him. Toss out my call. Got him, first try. Better quit while I'm ahead.

Thursday night, 9:45 PM...hmmm, seems like this guy is getting a run on contacts. US9QA...four tries, got him.

Measured the power and found out the rig was putting out 1.3W. Great feeling to make contacts using QRP and knowing you were up against QRO stations. Now to got to send out the QSL card and get these QSO's confirmed.

Frank - N01E

From ab4el.com Fri Jun 24 08:32:26 1994
From: mvjif@mvubr.att.com (James M Fitton +1 508 960 2577)
Subject: 72 FD

Dont forget to listen for each other immediately after FD on the QRP frequencies....

(Maybe we should do that during the last whole hour of FD ?)

K1LGQ put the QRP-NE newsletter "72" in the mail yesterday, 23 pages. Dennis did an excellent job, but we could sure use more authors and articles, esp. technical.....

The 40 meter crystals arrived that were ordered for the second batch of 40-40 kits. Jack, NG1G will stay home from FD to get them in the

mail....

Looking forward to FD !!!!

Also there are excellent authors on the Inet. Thank you all !!!

73/72 Jim Fitton, W1FMR QRP-NE mvjf@mvubr.att.com

From ab4el.com Wed Jun 22 09:56:49 1994

From: jrj@mbunix.mitre.org (Johns)

Subject: A QRPer's Library (Long)

I thought some of you might be interested in a list of some of the books found in one QRPer's library with some comments as to the relative value of the books to me in my day to day QRP activities. The comments expressed are mine and not those of my employer or anyone else. Comments from others who have used any of the references would be appreciated. While not a complete index of the books in my library, I find that I keep going back to these books for design and construction information. If anyone would like a copy of the Postscript version of this list, with my comments in italics and formatted for easier reading, just drop me an Email. One warning though, the Postscript file is very very large. Anyone have any other books to add to the list?

A QRPer's Library

Compiled by James R. Johns KA0IQT

ARRL Electronics Data Book, Doug DeMaw W1FB, ARRL 1976, 128 pages Soft Cover.

Handy electronics data in a package smaller than the "Handbook."

The Complete DX'er 2nd ed., Bob Locher W9KNI, Idiom Press 1989, 204 pages Soft Cover.

Not dedicated to QRP but an excellent book on DXing and techniques.

Ferromagnetic Core Design & Application Handbook, M. F. Doug DeMaw, Prentice Hall 1981, 256 pages Hard Cover.

Core and inductor data, information and applications.

History of QRP in the U.S. 1924-1960, Adrian Weiss WORSP, Milliwatt Books 1987, 199 pages Soft Cover.

One man's view of the history of QRP.

Introduction to Radio Frequency Design, Wes Hayward, Prentice-Hall 1982,

383 pages Hard Cover.

Good technical text but with only a few practical circuits.

The Joy of QRP: Strategy for Success, Adrian Weiss, Milliwatt Books 1984, 151 pages Soft Cover.

Chatty overview of QRP, oriented more to operation than technical, but does include several projects.

Practical RF Design Manual, Doug DeMaw, Prentice Hall 1982, 246 pages Hard Cover.

Good technical text with practical applications.

QRP Classics, Bob Schetgen KU7G editor, ARRL 1990, 274 pages Soft Cover.

Reprints of QRP articles from QST. Good compendium. Missing some "classic" designs (The original W7EL design for one)

QRP Notebook, Doug DeMaw W1FB, ARRL 1986, 77 pages Soft Cover.

QRP oriented with RX, TX and a few Xcvrs. Good but not great.

W1FB's QRP Notebook, Doug DeMaw W1FB, ARRL 1991, 179 pages Soft Cover.

Replacement for the 1986 QRP Notebook. Much improved with project PC boards available from FAR circuits.

Solid State Basics for the Radio Amateur, Doug DeMaw W1FB and Jay Rusgrove W1VD editors, ARRL 1978, 159 pages Soft Cover.

Beginner's theory course with good practical applications. This text is useful but quite dated.

Solid State Design for the Radio Amateur, Wes Hayward W7ZOI and Doug DeMaw W1FB, ARRL 1977, 256 pages Soft Cover.

The bible for QRP equipment builders! Excellent book but becoming dated.

W1FB's Design Notebook, Doug DeMaw W1FB, ARRL 1990, 198 pages Soft Cover.

While not a replacement for Solid State Design for the Radio Amateur, this is the best reference to come along for a long time. Covers everything from basic solid state theory through practical applications with PC board patterns.

The HW-8 Handbook 1st edition, compiled and edited by Michael Bryce WB8VGE, 1991, 56 pages Soft Cover.

Contains tips and mods for the Heathkit HW-7, HW-8 and HW-9 QRP transceivers. Reprinted several times, this classic is still in great demand.

RF Circuit Design, Chris Bowick, Howard Sams & Co. 1982, 176 pages Soft Cover.

This book, once out of print, offers insight into RF design including the

use of Smith Charts. Not for the beginner it offers valuable information for the intermediate to advanced designer.

Rechargeable Batteries: Applications Handbook, Staff of Gates Energy Products, Gates Technical Marketing 1992, 280 pages Hard Cover. Detailed information on the chemistry and application of primary, lead acid and ni-cad batteries including suggested charging circuits. More battery information than most will want but a good technical reference.

G-QRP Club Circuit Handbook, Compiled by Rev George Dobbs G3RJV 1983 from the G-QRP club journal SPRAT 1974-1982, 96 pages Soft Cover. Good reference material from the early issues of SPRAT. A must to fill in your SPRAT library.

G-QRP Club Antenna Handbook 1st edition April 1992, Compiled and edited by P. Linsley G3PDL & T. Nicholson KA9WRI/GW0LNQ, 155 pages Soft Cover. A good antenna reference comparable to the ARRL's Antenna Handbook.

Communications Receivers Principles & Design, Ulrich L. Rohde, T. T. N Bucher, McGraw-Hill Book Company 1988, 583 pages Hard Cover. Data on all aspects of high performance receivers.

Radio Frequency Transistors; Principles and Practical Applications, Norm Dye and Helge Granberg, EDN Series for Design Engineers, Butterworth-Heinemann 1993, 231 pages Hard Cover. Not a beginner's book. Appropriate for intermediate to advanced RF designers. Covers RF power and small signal applications.

Standard Radio Communications Manual: With Instrumentation and Testing Techniques, R. Harold Kinley, 1985, 420 pages Hard Cover. Covers techniques and evaluations of AM, SSB and FM transmitter and receiver testing.

Solid State Radio Engineering, Herbert L. Krauss, Charles W. Bostian, Frederick H. Raab, John Wiley & Sons 1980, 534 pages Hard Copy. Good theory and technical information on amps, mixers, oscillators, receivers and transmitters.

Single-Sideband Systems & Circuits, Edited by William E. Sabin & Edgar O. Schoenike, Collins Division, Rockwell International Corp, McGraw-Hill Book Company, 594 pages Hard Cover. Covers the generation, transmission and reception of SSB.

Newnes Practical RF Handbook, Ian Hickman, Newnes-Butterworth-Heinemann Ltd. 1993, 271 pages Soft Cover. Good RF overview with a British slant.

RCA RF Power Transistor Manual - Technical Series RFM-430, RCA 1971,
Soft Cover.
Great source of information and design techniques for RF power design.

SPICE & Computer Simulation Texts

SPICE - A guide to Circuit Simulation & Analysis Using PSpice 2nd edition,
Paul W. Tuinenga, Prentice Hall 1992.
Good introduction to PSpice. Includes examples. Comes packaged with
student version of PSpice or contains an order form for the disks.

PSpice A Tutorial, L. H. Fenical, Prentice Hall 1992 (\$32).
Good device modeling information using PSpice to plot semiconductor I/V
plots.

Computer-Aided Circuit Analysis Using PSpice 2nd edition, Walter Banzhaf,
Regents/Prentice Hall 1992 (\$34).

SPICE for Circuits and Electronics using PSpice, Muhammed H. Rashid,
Prentice Hall 1990 (\$28).

Inside SPICE: Overcoming the Obstacles of Circuit Simulation, Ron
Kielkowski, McGraw-Hill 1994.
A great discussion of the internals of SPICE and recommended solutions for
SPICE simulation problems. Includes R-SPICE software. Not a beginners
book but great for intermediate +.

Macromodeling with SPICE, J. Alvin Connelly & Pyung Choi, Prentice Hall
1992 (\$35).
Macromodels for phase locked loops and mixed analog/digital simulation
including Z transforms. With disks.

The Student Edition of MICRO-CAP III, Addison-Wesley-
Benjamin/Cummings, Addison-Wesley 1991.
A neat package. Includes the software and a users manual. The software
allows for schematic entry and generates netlists automatically
for analysis.

Semiconductor Device Modeling with SPICE 2nd edition, Giuseppe Massobrio
& Paolo Antognetti, McGraw-Hill 1993 (\$55).
This book delves very deeply into the semiconductor physics and the modeling
techniques used to represent those devices. Not for the beginner!

A SPICE Cookbook, Karl Heinzmueller, Intusoft 1991 (\$50).
Includes disk.

SPICE Applications Handbook 2nd edition, Charles E. Hymowitz & Lawrence

G. Meares, Intusoft 1994 (\$50).
With disk.

Simulating with SPICE, Meares/Hymowitz, Intusoft 1988 (\$65).

Oscillator Design & Computer Simulation, Randall W. Rhea, PTR Prentice Hall
1990 (\$60).

Includes disk. Good design information for oscillator design but the ultimate
goal of the book is to sell a very expensive software package.

SPICE for Power Electronics and Electric Power, Muhammad H. Rashid,
Prentice Hall 1993.

Includes order form for the student version of PSpice (\$10). This book is
oriented toward large power applications and equipment.

73 Jim Johns KA0IQT
jrjohns@mitre.org

From ab4el.com Tue Jun 21 13:43:01 1994
From: adams@chuck.dallas.sgi.com (Chuck Adams)
Subject: Active Defined

By active members, I mean the number of members
of a club who have a current paid up membership.
True, there are some people active in QRP who
are not currently paid up members. My whole
point on this discussion is twofold: 1 -
members come and go, but we need to nail down
what it takes for a large club to remain large
and 2 - there are a number of clubs with falling
membership numbers at a time when the number of
QRPers is climbing at a good rate.

End of Thread

dit dit
Chuck Adams K5FO CP-60
adams@sgi.com

From ab4e1.com Tue Jun 21 14:31:54 1994
From: Brad Mitchell <bmitchel@CBA.Kodak.COM>
Subject: Re: Active Defined

>
>
> By active members, I mean the number of members
> of a club who have a current paid up membership.
> True, there are some people active in QRP who
> are not currently paid up members. My whole
> point on this disscussion is twofold: 1 -
> members come and go, but we need to nail down
> what it takes for a large club to remain large
> and 2 - there are a number of clubs with falling
> membership numbers at a time when the number of
> QRPers is climbing at a good rate.
>
> End of Thread
NOT!

Very good,
Here's what I think it takes.

Openness, to all club members, honesty, to all club members,
integrity of majority of club members, and most of all
Modesty of the major players.
And with all that the club gains respect.
These are key factors in any club, be it 4-h or whatever.
Just an opinion.
73.... yes just 73 call me old fashioned, but don't call me an o.f.
Brad WB8YGG

From ab4e1.com Sat Jun 18 15:22:44 1994
From: kaul@news.nbc.com
Subject: Activity from HH2

SLUG	SHOW	WRITER	MODIFIED kaul	TIMING	LC
ATTACHED		kaul	Sat Jun 18 15:14 1994	READY 0:39	22

Hallo from HH2! ((Port Au Prince, Haiti))

There's a few Hams here in from US TV news trying for licenses. Look for N4MU/HH2 or HH2MU when the printed license comes thru later in the week. KA6CMX and I (I'm W6RCL) are also trying but who knows how fast (or slow) things can happen. We're all using 100 W xcvrs on SSB (in our haste to get here, none of us brought keys or keyers). N4MU/HH2 has already had Q's on 20 and 40 using a duo-dipole. KA6CMX and I have an Isolooop (look for us on 20-17-15-12-10, and we're trying to kluge together an antenna for the low bands.

72, 73 de alan W6RCL (reply internet: kaul@news.nbc.com)

From ab4el.com Wed Jun 22 10:41:42 1994
From: Tom_Jennings <jennings@eng16.rochny.uspra.abb.com>
Subject: Another QRP Field Day Station

Hi qrp'ers

I'm planning to be on the air for a while during Field Day most likely late Saturday night and early Sunday. Will be qrp but from home station. Due to daughter graduation and out of town relatives coming can't be out in the field... sigh

73.

TJ, kv2x

PS My daughter, Jen, will be going to collage in the fall and I'm trying to convince her to get her tech license so we can talk using 2 m repeaters. It would be nice if she got some encouragement from the group via e-mail. But don't say I'm behind it!!! Her e-mail address is

jaj1568@ritvax.isc.rit.edu

Thanks.

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Thomas J. Jennings | Tel: (716) 273 7071
Development Engineer | Fax: (716) 273 7262
|

ABB Process Automation |
Post Office Box 22685 |
Rochester, New York 14692-2685 |
|

Internet: jennings@jennings.rochny.uspra.abb.com

From ab4el.com Thu Jun 23 19:28:21 1994
From: wyn@stc06.CTD.ORNL.GOV (WYNN C C)
Subject: ark 4 Fix

~r dick.txt

From ab4el.com Thu Jun 23 19:42:24 1994
From: WYNN C C <wyn@stc06.CTD.ORNL.GOV>
Subject: ARK 4 FIX

Notice to all ARK 4 Airmen (air persons??)

S&S Engineering has released an engineering bulletin and retrofit kit on the ARK 4.

After I reported here and to Dick about the sidetone tail I was hearing immediately after key up, he recognized it as residual RF from the transmit side still running after the keyed voltage had released the receiver mute. This was particularly noticable during assembly when pad A1 is shorted to A2 (ie. the audio filter is not switched in) and with the volume up. Apparently this was caused by a timing problem between the keyed 12 volts (12K) and the relay switched 12 volts (12SW).

Two weeks ago, I didn't think much about it when Dick said "we'll have to fix that". Today a retrofit arrived in the mail. Following the enclosed instructions, it only took about 15 minutes to complete the fix. The sidetone tail went away. You can't beat that for service after the sale.

73
C. C. (Clay) Wynn N4AOX
wyn@ornl.gov

From ab4el.com Thu Jun 23 23:29:36 1994
From: "W. Daniel" <pandora!daniel@Think.COM>
Subject: RE: Ark 4 fix

Just thought I'd add my \$0.02 about S & S. When I was building my ARK 20, I

over tightened the standoff and broke it. I also destroyed the rear panel screw threading. That really made me sad as the rig was simply beautiful. I gave Dick Szakonyi a call and guess what, he sent me all those parts, air-mailed to Singapore, for no charge at all. Now THAT has to be the best after sales service I've yet seen from any kit supplier.

The I wanted to modify my crystal filter for narrower bandwidth. An e-mail to Dick at dzal@aol.com soon got a reply for new capacitor values which worked fine. Dick AND Kathleen know their product well and are really nice people.

I remember when I called Ramsey, long distance (US\$15.00 for 3 minutes block), and the woman who answered the phone was rude and impatient, uncooperative, actually put me on hold at the above rates!!! She did know the product though.

If I wanted to get something and S & S had it, I'd get it from them, even if it was a little more expensive. I havent seen as good quality boards, manuals, component, design and service from anywhere else. Yep, that's right, and nope, I am not affiliated to them in anyway other than being a very impressed customer.

73,
Daniel

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+-----+-----+
| Daniel Wee | daniel%pandora@csah.com | ** Man needs more
| UUCP1.12b | daniel.wee@f516.n600.z6.fidonet.org | than a new start, he
| SNEWS 1.91 | csah.com!pandora!daniel | needs a new heart! **
+-----+-----+
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From ab4e1.com Sat Jun 18 08:56:05 1994
From: "Justin Rains" <usr12314@TSO.UC.EDU>
Subject: ARRL Member for WAS??

Hello everyone, I was just making sure you have to be an ARRL member to get a WAS certificate. Is this correct?

73 de Justin, AA9KM

From ab4e1.com Mon Jun 20 12:17:36 1994
From: Duane P Mantick <wb9omc@ecn.purdue.edu>
Subject: Re: ARRL Member for WAS??

Justin asked if you had to be an ARRL member to get the WAS.

To get *their* WAS, maybe. Other organizations offer a WAS of one sort or another, so the ARRL one isn't the ONLY game in town.

The way I see it, if you've WAS'ed, you've WAS'ed - if you can turn cards in and have them verified it doesn't matter WHAT the ARRL thinks.....

I'm two states short of my 10-10 WAS, need Illinois and Michigan. Once I get them, and get my certificate from 10-10, I will have completed WAS with a rather small subset of all hams, and done it ALL on ONE band and done it ALL with less than 25 watts. And I might add, done it all on the novice/tech segment of 10 meters, too.

I am REALLY hoping that I can get them to print the certificate up with this info. on it.....

Why bother diluting it with a certificate that is *easier* to get?

And you can BET that the certificate number will go on the QSL cards as well.....

I'd bet that if you look around, you'll find other WAS awards - check in CQ and 73 magazines.

Duane

From ab4el.com Sat Jun 18 09:54:44 1994
From: brucerob@epas.utoronto.ca (Bruce Robertson)
Subject: audio filtering & muting

I'm almost ready to assemble my 30m vxo/rx with only a few outstanding issues. Firstly, I have to decide whether or not to include the 5 watt power amp. This is complicated by the fact that I can't measure the power out of the 2N3866 before the power amp with any accuracy. If it's putting out 1 - 1.25 watts, do you think that's enough for a first time qrp rig on this band? This reminds me, I rewound a transformer and found that this increased current into the rig, but didn't make my wattmeter/dummy load jump nearly at all. I suspect the wattmeter is very non-linear, however. Question: is any increase in current (& warming up of the 2N3866) likely to signify an increase in rf power out?

Secondly, while the Sudden receiver (an NE602 and LM386 special) is working fine, I'm a bit worried about the wide audio freq. response. (Practically DC to dog-whistle.) A filter built around a '741 seems easy enough, but given that the rx tuning is separate from the tx, can I get by without it? Finally, in testing the tx & rx near each other, I found that the rx naturally produces a whopping sig. when I xmit. Is there a simple audio muting circuit I could apply to the LM386 or the possible 741 audio filter before it?

Thanks & 72, VE3UWL

Bruce G. Robertson internet: brucerob@epas.utoronto.ca
Dept of Classics Satius est enim otiosum esse quam nihil agere.
University of Toronto It's more fun to relax than it is to do nothing
 at all. Pliny_Ep_1.9.8

From ab4e1.com Tue Jun 21 20:36:16 1994
From: Charles Furnweger <CHARLES@asic.mtv.nec.com>
Subject: Away on a trip

Hi!

This is just a test of the auto-forward feature of the EMAIL system. Please ignore this message.

Bye..... :-)
Charles

From ab4e1.com Wed Jun 22 09:19:38 1994
From: teda@meaddata.com (Ted Albert)
Subject: Balanced Modulator Transformer Problems

My 160 meter transmitter project is now at the balanced modulator stage. I built a two diode balance modulator, using a 12 turn, #26 gauge, trifilar wound transformer. Most of the circuits I looked at used an FT37-61 core for the lower bands. Not having one of those puppies in the junk box, I plucked out a core that was about the same size and used it to see if it would work. I really have no idea what type of material is in the core or anything else about it except its physical size.

I wired the circuit on the prototype board, injected a signal from the vfo, and could barely hear audio in the test bench receiver. I double checked the speech amp to make sure things were working there. Then I added a class A buffer amp using a 2N2222. Now I could hear the audio, but it was awful. A local ham suggested dumping the diodes and using an MC1496. I decided to stick with the diodes for a while longer. Last night I checked the output on other bands. At 10 meters, I had plenty of output before the buffer amp and loads of audio. Full carrier insertion results in a great sounding AM signal.
(what no plate modulation shudder ... don't tell the S.P.A.M. crowd on 40 meters)

A quick check of the material on broadband transformers in the Solid State Design book did not shed much light on what is happening with this circuit. Seems to me the only frequency determining components in the balanced modulator are the toroid and possibly the number of windings. Can someone shed some light on how the core material might affect a broadband transformer's frequency response. My quick read of the book dealt mostly with impedance matching.

73 de Ted, KF8EE

From ab4el.com Fri Jun 24 09:06:28 1994
From: teda@meaddata.com (Ted Albert)
Subject: Balanced Modulator Woes Resolved

I managed to get my balanced modulator circuit to work at 160 meters last night. I switched the unknown core for a T37-2 and used 15 turns of #30 trifilar wound. Now it works great for 160-10 meters. I used the wire sold by Radio Shack for wire wrapping to make the transformer. I had spools of the stuff in 3 different colors, which made the job of identifying leads much easier.

Tonight I will be adding the final amp and low pass filter. Already have the local crowd primed and waiting to give me on the air checks once the solder cools.

I like this hobby....

73 de Ted, KF8EE

From ab4el.com Wed Jun 22 04:45:25 1994
From: jjw@seastar.seastar.org (John Welch)
Subject: Band openings

While I realize most of the gang are rabid HF-ers :-) in case anybody cares both 6 and 2 meters have been hotter than a firecracker recently. I've worked gridsquares DN72 and EM90 on 8 watts peak SSB, from EN52 with a 4.5MHz Dipole on a tuner on 6, and I heard Florida (EM90s) on 2 *without an antenna connected*.

Tune around on 6 in the evenings, and if this holds up it'll be a *great* field day!

--

John Welch, N9JZW

From ab4el.com Wed Jun 22 09:14:48 1994
From: teda@meaddata.com (Ted Albert)

Subject: Re: Band openings

> While I realize most of the gang are rabid HF-ers :-) in case
> anybody cares both 6 and 2 meters have been hotter than a firecracker
> recently. I've worked gridsquares DN72 and EM90 on 8 watts peak SSB,
> from EN52 with a 4.5MHz Dipole on a tuner on 6, and I heard Florida
> (EM90s) on 2 *without an antenna connected*.
> Tune around on 6 in the evenings, and if this holds up it'll be a
> *great* field day!

Last night was another great one for both 10 and 6, but where was everyone on
10 meter CW? I called and called, finally gave up and listened to the fun
the gang was having on 6 meters. Once I finish my 160 meter project, I think
a 6 meter xmitter will be in the works.

73 de Ted, KF8EE

From ab4el.com Mon Jun 20 12:03:47 1994
From: xenolith@halcyon.com (Kevin Purcell)
Subject: Big Gel Cells at Sears

I noticed in the Sear battery ad in the Seattle Times that they are now
carrying a large capacity gel cell. Its marked as a wheelchair battery, U-1
size (anyone know what that means). Priced in around \$65 (with trade-in?).

How does this compare to the normal price for a larger gel cell? Seems like
almost anyone in the US could get one locally.

73

Kevin Purcell, N7WIM / G8UDP
xenolith@halcyon.com "Organising programmers is like herding cats"
(206) 649-6489

From ab4el.com Mon Jun 20 12:52:33 1994
From: Duane P Mantick <wb9omc@ecn.purdue.edu>
Subject: Re: Big Gel Cells at Sears

>
> I noticed in the Sear battery ad in the Seattle Times that they are now
> carrying a large capacity gel cell. Its marked as a wheelchair battery, U-1
> size (anyone know what that means). Priced in around \$65 (with trade-in?).
> How does this compare to the normal price for a larger gel cell? Seems like
> almost anyone in the US could get one locally.
>

To give some generic idea, in 1989 I bought a 12volt, 6.5 amphour Panasonic GelCell from DigiKey. I don't recall what I paid for it then, but it is about \$32 right now. They also have a 12V, 38 aH that runs \$138. I didn't see an aH rating in your post, so it's kind of hard to say. The listing I have for Panasonic jumps from 6.5 aH to 17 aH, which costs about \$77.

BTW, I have been VERY pleased with this cell. It charges quickly, holds up nicely, I sure can't complain. I have run my HR2510 off of it for several hours at a time, plus having used it for quite a number of other things. If *all* of the Panasonic gelcells are this good, I'd give a personal okiedokie.....

Keeping in mind, of course, that I am NOT affiliated with either Panasonic or DigiKey as anything other than a paying customer. :-)

Duane

From ab4el.com Mon Jun 20 12:46:51 1994
From: hpb@hpb.cis.pitt.edu (Harry Bloomberg)
Subject: Big Gel Cells at Sears (fwd)

> I noticed in the Sear battery ad in the Seattle Times that they are now
> carrying a large capacity gel cell. Its marked as a wheelchair battery, U-1
> size (anyone know what that means). Priced in around \$65 (with trade-in?).
>

Do you happen to know the capacity of this cell?

Another good value at Sears is their largest marine battery. This beast weighs over 70 pounds and is rated at 140 AH! With 30 watts of solar panels attached to it we ran all of last year's Field Day at 50-100 watts of CW. When our club purchased one a few years ago, the price was around \$70.

After using the marine battery and solar panels at the last three Field Days, I have decided that I will never go back to using gas generators. Batteries are silent and don't emit noxious odors, two characteristics that are important if your FD is in a public place.

Harry Bloomberg WA3TBL
hpb+@pitt.edu

From ab4el.com Mon Jun 20 10:30:22 1994
From: "Never get out of the boat, man" <WHITE@CSUSYS.CTSTATEU.EDU>
Subject: Comments sought on TT Argonaut 509 rig

Harry

- - - - + - - - -

From: rehm@zso.dec.com

However, when the article gives dimensions for the 40-20 m loop, the main loop diameter is specified as 1.7 m and the coupling loop as .34 m. These dimensions are somewhat bigger (5-6%) than what a linear increase in dimensions would predict (1.58 m and .324 m, respectively). This eventually adds up to a main 40-20m loop that is a foot longer than I expected.

Perhaps this is why Scott had problems tuning the 40-20 m loop
on 30 & 20 m?

Can someone with access to the Communication Quarterly articles
comment, with the appropriate math, if possible? (That way we can build a
working 160-80 m version. ;-))

/eric rehm
N7FJK

From ab4el.com Wed Jun 22 16:48:26 1994
Subject: Re: Compact loop antenna
From: rehm@zso.dec.com

> This is explained very nicely (with all the formulae) in the current ARRL
> Antenna handbook.
>
> >
> > Since I don't have the current ARRL Antenna handbook, can you at least
> > give me a hint? Is the QST article in error or not with respect to the
> > 40-20 loop values, i.e., are the loop diameters linear or non-linear with
> > respect to wavelength?
>
> From what I remember its not linear (why would you expect it to be so?)

Well, I guess since the length of a dipole is linear wrt wavelength ($468/f$).

> but that's not much help. In fact it doesn't matter too much if you are off
> because you are going to tune it with a variable capacitor. If the loop is
> too big you will have a larger amount of distributed capacitance which
> limits the usable high frequency end.
>
> Kevin Purcell, N7WIM / G8UDP
>
>

I'm gonna buy the book and snarf the Comm. Quarterly articles somehow,
and figure out if the QST article is in error for the 40-20m loop dimensions.
Again, as you say, a 40-20 m loop that's too large might have trouble
tuning on 30 and 20 m. This is exactly the problem reported by someone
else (Scott) on the QRP list.

Thanks for your comments,

/eric

From ab4el.com Thu Jun 23 10:19:32 1994
From: sas@opus.xyplex.com (Scott Sminkey - Sustaining Eng Group)

Subject: Re: Compact loop antenna

Regarding the discussion on the size of the QST 40/30/20m compact loop, I haven't had time yet to play around with mine to get it going on 30 and 20. (It does work on 40 ok.) I don't think that the size is critical, given that the electrical length is adjusted using the variable capacitor. I also ran the QST dimensions through the BASIC program from the Comm Quarterly article and it should work ok with the dimensions as published in QST. The most important aspect in the dimension of the main loop is to keep it no larger than 1/3 wavelength on any band it is intended for. If it gets larger than that, it will not work as a "magnetic" loop, but instead as an "electrical" loop and then the entire design and implementation is not valid. The QST design seems to have the loop between 1/8 and 1/4 wavelength for the stated bands.

This weekend, I am bringing my 40/30/20 loop to Field Day and I'll probably spent the morning experimenting with it to try to get a good match on 30 and 20. I am optimistic that by adjusting the shape, placement, and maybe even size of the coupling loop, I will get it working on 30. I am not so optimistic about 20, though, because I suspect that the variable cap I am using has too large a minimum/residual capacitance to get it to resonate on 20. I'll report back early next week on how things went at Field Day.

By the way, I think that the importance of "ohmic losses" on these loops may be a bit overstated. I have been using conventional soldering with braid and large connections on the main loop. For the coupling loop, I've soldered to spade/ring type lugs and screwed things together and it seems to work ok.

Oh yeah, on Field Day, listen for W1TKZ (EMA section) on 21.060 +/- QRP with a KH6CP QRP Three Bander powered by solar panels.

.00731415926535897932384590,
Scott W01G

=====

Scott Sminkey	email: sasminkey@eng.xyplex.com
Software Sustaining Engineering	voice: 508 952-4792
Xyplex, Inc.	fax: 508 952-4887
295 Foster St.	(Opinions, comments, etc. are mine,
Littleton, MA 01460	not Xyplex's...)

From ab4el.com Fri Jun 24 11:25:47 1994
From: "Bob Scott" <bob_scott@cpqm.saic.com>
Subject: Contest QSLs

Contest QSLs

Is it considered bad taste to QSL contest contacts? Has QSLing gone out of style. During the last big QRP contest, I only made

around 20 contacts. I dutifully QSL'd them all and received only 4-5 back. I was kind of surprised at the low return rate, especially from the two folks I worked that were in the states of Washington and Oregon; which I was quite proud of due to the power levels and the awful band conditions. Anyone, could someone explain the current rules/guidelines/practices? Thanks. Bob AC4QO

From ab4el.com Fri Jun 24 12:35:41 1994
From: Duane P Mantick <wb9omc@ecn.purdue.edu>
Subject: Re: Contest QSLs

>
> Contest QSLs
> Is it considered bad taste to QSL contest contacts? Has QSLing

Not in *my* book, although I usually limit this to sending:

a) responses to cards I get

b) QSL's for DX stations or a station from someplace I need a QSL for for some reason.

> gone out of style. During the last big QRP contest, I only made

Only with people who aren't REAL hams.... :-)

> around 20 contacts. I dutifully QSL'd them all and received only
> 4-5 back. I was kind of surprised at the low return rate,

Make sure you have gotten all the info. on them that another station might need or want. The biggest thing I've heard gripes about are hams that don't put the contact time in UTC. MAKE CERTAIN YOUR QSL SPECIFIES THE TIME IN UTC!!!!

Some hams these days aren't interested in QSLing if you don't send them an SASE. Personally, I don't do this unless there is a specific reason or if I need a card bad enough.

DX folks often get inundated with QSLs, and unless they have access to cash nearly equal to their entire nations Gross National Product, can't pay for the postage to answer them all. The IRC (International Reply Coupon), available from the Post Office, is helpful to them. They can generally redeem each IRC for 1 unit of air mail postage. I believe the front of the International Call Book has a chart that tells you approximately how many IRC's to send for a given country.

(it should be noted that in spite of how much we whine and bitch here in the US about postal rates, we have one of the cheapest postal services in the world....)

The inclusion of a self addressed envelope to the DX station can also be helpful.

> especially from the two folks I worked that were in the states
> of Washington and Oregon; which I was quite proud of due to the
> power levels and the awful band conditions. Anyone, could

Yeah, I know the feeling.

> someone explain the current rules/guidelines/practices?

The above is what works for me. I'd say I am batting between 60 and 80 percent for US/Canada QSL's and about 90 percent for DX cards and NONE of that went through a bureau (I am NOT an ARRL member; most of my snail-mail to any bureau asking about their service goes utterly unanswered). I have also had good luck in cases where a DX station has a US representative who isn't necessarily a bureau but just has agreed to handle cards for that DX station.

But I gotta say it - keep in mind that there are a lot of US hams these days who don't bother to QSL because they don't care, and if you send them one it probably will go in the s***can because they haven't even bothered to have a card printed (in spite of the fact that now with computers being so commonplace, you can make them \$00000 cheaply....). These alleged hams :-) don't strike me as REAL hams at all.

Duane
wb9omc

From ab4el.com Sat Jun 25 00:36:18 1994
From: stark <mswmod@sage.unr.edu>
Subject: Re: Contest QSLs

On 24 Jun 1994, Bob Scott wrote:

> Contest QSLs
> Is it considered bad taste to QSL contest contacts? Has QSLing
> gone out of style. During the last big QRP contest, I only made
> around 20 contacts. I dutifully QSL'd them all and received only
> 4-5 back. I was kind of surprised at the low return rate,
> especially from the two folks I worked that were in the states

> of Washington and Oregon; which I was quite proud of due to the
> power levels and the awful band conditions. Anyone, could
> someone explain the current rules/guidelines/practices?
> Thanks. Bob AC4QO

>
>

Hi Bob,

Just a quick observation from things I've seen.

Up in Idaho I had some good antennas and would run a long string
of JA's in the AM on 40m during most contests. After a good WPX
test with some good conditons it was not unusual to get 150 JA
cards alone.

Being in Idaho and having a "good" prefex was worth a few Db I think!

Add another 50 to 100 cards from other places and the costs begin to
mount. I would answer all cards via the buro unless they had an
sase.

Whenever I want a card from a station, I ALWAYS include an sase.

With the setup I now have and no more than I get on, QSLing is
no longer a chore. Nor is it expensive.

If you ask for a card during a ragchew and the other station
agrees to send one, then you should be able to count on it
getting to you. If they ask for an sase and you want the card,
send them one.

And always remember that if someone asks you for a card and
you really don't want to be bothered sending one, just say
so. Don't be one of those who says ok and then you never hear
from them!

Just realize that after a contest a station may get lots of
cards and a sase is good.

All this is just my opinion. Worth at least 2 cents to me.....

73's and have fun, Ron

.....KU7Y.....
.....Monte "Ron" Stark.....
.....Sun Valley, Nevada.....

From ab4el.com Thu Jun 23 06:45:23 1994
From: nmodena@unity.ncsu.edu
Subject: Core Parameters

Ted--

>From: teda@meaddata.com (Ted Albert)
>Date: Wed, 22 Jun 94 09:23:03 EDT
>Subject: Balanced Modulator Transformer Problems

> My 160 meter transmitter project is now at the balanced
> modulator stage. I built
> a two diode balance modulator, using a 12 turn, #26 gauge, trifilar wound
> transformer. Most of the circuits I looked at used an FT37-61 core
> for the lower
> bands. Not having one of those puppies in the junk box, I plucked out a core
> that was about the same size and used it to see if it would work. I really
> have no idea what type of material is in the core or anything else about it
> except its physical size.

... [describes problems]....

I'm not an expert on torroids, but...let me pass on a couple of observations
derived from experimenting with several types of HF baluns.

Frequency range of operation is determined by core material, number of
turns, spacing of turns, isolation of input leads from output leads and
turns-per-inch (tightness) of the trifilar wire itself.

The setup was to build a 4:1 impedance transformer for HF...I used a noise
bridge to determine the frequency of operation by measuring how close
the output was to 50 ohms resistive, given a 200 ohm input resistor.

Core material determines frequency band of operation...one of your unknowns.

Tightness of trifilar twist had a significant effect, especially, at
the 160 M end.

Number of turns and their spread, of course, is very important.

The characteristic signaling edge-of-range of operation, was the
noticable straying of output from 50 ohms resistive...i.e., reactive
component appeared and pure transformation ratio was lost.

Your application *requires* (IMHO) the same performance as a broadband
balun transformer.....

I strongly urge you to use a noise bridge to objectively plot the performance of your torroidal transformer...if the winding fails to meet required specs, it will never work.

Making a balun that works on 80-40-20-15-10 is easy, but one that works on 160-80-40-20-15 is not so easy, because the 160 M part is harder to achieve.

I hope my thoughts help end the frustration.

--

73/Steve/AB4EL ab4el@Cybernetics.NET

From ab4el.com Wed Jun 22 11:14:30 1994

From: ryme@wpsmtp.bloomu.edu

Subject: CQ

N6KR DE N3PFF

YOU HAVE A FINE 59 INTO CENTRAL PA WITH NO QRM/QRN.

GOOD SIGNAL, OM.

THE NAME HERE IS JOHN. I'M 42 AND HAVE BEEN LICENSED FOR JUST OVER A YEAR. ENJOYED RADIO AND ELECTRONICS FOR YEARS.

I WORK AS PC COMPUTER AND NETWORK TROUBLESHOOTER AT BLOOMSBURG UNIVERSITY.

WHAT DO YOU DO FOR A LIVING?

WE ARE RUNNING AN UNISYS 386 WITH EGA VIDEO DRIVING A 10-BASE T 10 MPS ETHERNET NETWORK INTO A 1/2 T1 SWITCHED DEDICATED LINE.

WHAT ARE YOU RUNNING AT YOUR END?

OVER TO YOU, OM. KN

From ab4el.com Wed Jun 22 13:05:29 1994

From: Brad Mitchell <bmitchel@CBA.Kodak.COM>

Subject: CQ DE N6KR

n6kr n6kr n6kr de wb8ygg wb8ygg wb8ygg / qrp k k

;guess he called cq, then left the room.. bummer, no 6 land confirmation on internet.

; oh well only a few more before inet was.

;

From ab4el.com Wed Jun 22 15:41:07 1994

From: lbrunson@rodgers.rain.com

Subject: Re: CQ DE N6KR

In keeping with the spirit of QRP I think that only those running dumb

terminals or 8 bit machines ... maybe even 1200 or 2400 baud modems should answer this call.

Lowell Brunson (503) 681-0417
Rosenet: lbrunson@roland.co.jp
Internet: lbrunson@rodgers.rain.com (preferred)
lowell@teleport.com
Packet Radio: KC7DX@K7IQI.OR.USA.NA

From ab4el.com Thu Jun 23 09:23:59 1994
From: prvalko <prvalko@vela.acs.oakland.edu>
Subject: Re: CQ DE N6KR

On Wed, 22 Jun 1994 lbrunson@rodgers.rain.com wrote:

> In keeping with the spirit of QRP I think that only those running dumb
> terminals or 8 bit machines ... maybe even 1200 or 2400 baud modems should
> answer this call.
>

Good... then send me a QSL card :-)

PC IBM PC/XT w/ 20MB drive
Software Crosstalk Mk. 4
Modem Hayes Smartmodem 2400 w/ 2400 Baud dial up link.

73 =paul= wb8zjl

From ab4el.com Thu Jun 23 12:07:43 1994
From: xenolith@halcyon.com (Kevin Purcell)
Subject: Re: CQ DE N6KR

On a slightly different tack it should be possible to work "DXCC" with email these days and it shouldn't be trivial.

Any takers?

Kevin Purcell, N7WIM / G8UDP
xenolith@halcyon.com "Organising programmers is like herding cats"
(206) 649-6489

From ab4el.com Thu Jun 23 14:33:04 1994
From: xenolith@halcyon.com (Kevin Purcell)

Subject: Re: CQ DE N6KR

This is not a problem, for example if everyone used PGP, authentication would be simple.

For those of you interested in oddities like zero-knowledge proofs, authentication and mental poker should get a copy of "Applied Cryptography": this is to cryptographic technique as "Solid State Design" is to QRP. Also see the latest copy of Byte for a good description of PGP.

ObQRP!

For those of you that don't read the "back pages" of QST get your June copy and read the satellite column. It contains a page long essay describing what Zack Lau does on his vacations to Hawaii -- he works via AO-13 (a HEO sat) satellite with QRP uplink! 7 watts CW at 70cm and listening to the mode S downlink with his homebuilt microwave gear. A good read for those of you who think were running out of things to do!

>>On a slightly different tack it should be possible to work "DXCC" with
>>email these days and it shouldn't be trivial.

>>

>>Any takers?

>>

>>Kevin Purcell, N7WIM / G8UDP

>>xenolith@halcyon.com

"Organising programmers is like herding cats"

>>(206) 649-6489

>

>And the equivalent of QSL cards? The possibilities for faking electronic logs
>boggle the mind!

>

>Enjoy!

>

>Jim

>K5YUT

Kevin Purcell, N7WIM / G8UDP

xenolith@halcyon.com

"Organising programmers is like herding cats"

(206) 649-6489

From ab4el.com Tue Jun 21 17:01:12 1994

From: burdick@interval.com (Wayne Burdick)

Subject: CQ DE N6KR K

I have threatened to call CQ on the Internet before, and now I've finally done it. Respond as you see fit.

This may seem frivolous, but it's actually an experiment. I'm interested in the similarities between on-the-air and on-the-net operation. The latter seems to occupy more ham bandwidth for some of us these days.

The net has advantages: no propagation problems, stored messages that allow delayed response, easy interface with the shack computer :) etc.

Of course, ham radio is fun precisely because of the vagaries of propagation. But I wouldn't mind kicking off a discussion of Wired Ham Radio (WHR) and where it fits in a continuum that might include:

- wireless ham radio
- repeaters
- packet radio
- E-mail
- qrp@think.com

73,
Wayne

From ab4el.com Tue Jun 21 19:06:36 1994
Subject: Re: CQ DE N6KR K
From: Grover Cleveland <groverc@gvgadg.gvg.tek.com>

N6KR DE WT6P UR 599 HR IN PENN VALLEY NAME GROVER K

From ab4el.com Wed Jun 22 07:11:19 1994
From: Brad Mitchell <bmitchel@CBA.Kodak.COM>
Subject: Re: CQ DE N6KR K

n6kr de wb8ygg wb8ygg /qrp k

From ab4el.com Wed Jun 22 19:25:24 1994
From: burdick@interval.com (Wayne Burdick)
Subject: CQ Internet: Results

Thanks to all who answered my CQ Internet call. Many imaginative descriptions of equipment, and some good ideas.

Sure enough, the experiment felt a little like ham radio and a little like e-mail. The jury's still out on whether this is a unique new operating mode.

Anyway, here's the Log/Soapbox. 10 contacts, maybe 7 states, 2 countries...not bad for one call!

=====

N6KR de WB0GAZ

Right now my job is **dull** and at least for
now I have time to play Virtual Ham Radio <tm> :-)

What about contesting???

FB OM UR RST 599. TNX FER QSO ES CUL. 73 DE KF9KI SK

(kinda like a water clock emulator for a Cray !)

N6KR de TF3KX

Hi, Wayne. UR 599 hr in QTH REYKJAVIK(work). Home is HAFNARFJORDUR, 10 mi
south. Name is KRISTINN or KRIS (or even KIDDI - the Icelandic nickname).
Age: 35, two boys - 5 and 0+ yrs old, one wife, blue Toyota '84, etc...

How copy?? (as I should have to ask...) N6KR de TF3KX K

N6KR DE WT6P UR 599 HR IN PENN VALLEY NAME GROVER K

PLEASE QSY !!!!!!!!! The frequency is OCCUPIED !!! DE AB5EU G3WQO

RST 599 -- NM HR KEVIN IN SEATTLE WA -- RIG IS EUDORA ANT IS A MAC IICI
FB SIGS... HW CPY? DE N7WIM

Wayne, please QSL my Number 1 Ham Radio QSO via computer???

72, Doug (KI6DS)

>The net has advantages: no propagation problems...etc.

DX is not much of a challenge, though.

For me, the availability of the net means that packet radio is not very interesting. Instead, as a ham, I'm attracted to the simplest and least high-tech modes of communication. Home-brewed qrp cw....

Wonder if this thread might turn out to be useful to the long-range planners written up in the current issue of _QST_?

72! K5YUT

n6kr de wb8ygg wb8ygg /qrp k

Hi, Wayne. Name hr is Gene. QTH is Lexington, SC. UR 599 no QRM. rig is 486DX/66. ant is belden 9907 E34972IC20 Shielded. However, I am in the process of building a 10 meter transciever....

73 DE KC4SA

From ab4el.com Sat Jun 18 17:49:09 1994
From: Mike.Czuhajewski%hambbs@wb3ffv.ampr.org (Mike Czuhajewski)
Subject: CW Crystals

From a recent e-mail-- "Is CW Crystals still in business??? I tried to track them down a year or so ago using an address I had from a previous order, and also tried Directory Assistance to get a phone number. No luck via either route -- mail was returned, and the fone company had no record of them. Do you have a current address or number for them?"

In a recent message I said something about them having an ad in QST every month. Looks like they've scaled back the advertising budget quite a bit--I checked the April, May and June 1994 issues, and each had just a couple lines referring you to their bigger ad on page 218 of the January issue. In that issue it's the second classified ad on the page and gives some prices--and they aren't too bad, especially if you order in quantity.

It only gives the address as W0LPS, C-W Crystals, Marshfield, MO

65706. I checked my 1993 callbook--it's Robert Woods, 570 N. Buffalo Street, which sounds familiar (I ordered from him several years ago).

The ad also says to send 4 stamps or a dollar (hint--the latter is the better deal) for "listings-circuit package"--a brochure, in other words. Give this address a try if interested. 73 de WA8MCQ

--

Mike Czuhajewski, user of the UniBoard System @ wb3ffv.ampr.org
E-Mail: Mike.Czuhajewski%hambbs@wb3ffv.ampr.org
The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA
Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

From ab4el.com Tue Jun 21 21:56:34 1994
From: B61395@awtims.fe.anlw.anl.gov
Subject: Errata: KR8L 160m TX

This may be of interest to those who requested copies of the writeup and schematic for my HB 160m TX --

Thanks to Dave, WA4NID, for helping me notice an error in the schematic. Both RF chokes should have their values listed in MICROHENRIES, not millihenries! I can't take the whole blame for this: I based my design on one from Solid State Design for the Radio Amateur, and the schematic there shows millihenries. I must have realized the mistake when I built the rig, because I used microhenry values, but then copied the error when I redrew the schematic.

As a construction hint, the "200 mh" choke in my version is actually 220 microh, and the "50 mh" choke is actually two 100 microh, 275 ma units in parallel to be able to handle the necessary collector current in the final. Both were obtained from Oak Hills Research, and are the little miniature chokes with color code bands that look like resistors.

Thanks, Dave!

73 to all, de Bill, KR8L/7 (wparmley@anl.gov)

From ab4el.com Fri Jun 24 10:15:13 1994
From: ryme@wpsmtp.bloomu.edu
Subject: FD QRP

We'll be on the air for FD as:

West Branch ARA W3AVK Williamsport, PA

72 and Thanks,
John N3PFF

From ab4el.com Fri Jun 24 15:34:51 1994
From: JimN00CT@aol.com
Subject: Field Day

St. Louis QRP Society will operate 1A or 2A battery with the call N0ZZ. Net members (I know of) that will be there are Jim N00CT, Jeff N0MII, Matt N0XEU and Dave NF0R among others. Look for us 80-40-20 and 30 just for fun!!

72 and GL!! Jim N00CT and SLQS

From ab4el.com Fri Jun 24 10:41:10 1994
From: B61395@awtims.fe.anlw.anl.gov
Subject: Field Day -- QRP

The Eagle Rock Amateur Radio Club will operate QRP on Field Day from Pine Creek Pass (6500 ft. MSL) east of Idaho Falls, Idaho. The call will (probably) be WC7F. (If not, then WT7B.)

diddleydahdidah (c) 1977 WB8RXN, Reproduced with Permission

73 de KR8L/7, M-98, NWQ-127, NorCal-454, AMSAT-8735

From ab4el.com Tue Jun 21 13:00:42 1994
From: ee115@cleveland.Freenet.Edu (Michael T. Flanagan)
Subject: Field Day Operations

Has anyone had any experience with lead-acid (camcorder type) batteries for remote qrp operating? I know I can't expect much xmitting time as the battery I have is rated 2.2 amphrs at 12v.

I will be starting a one week vacation on Ocean Isle N.C. north of Myrtle Beach on Saturday 6/25/94. I'll be operating late Saturday and early Sunday for field day from the beach, on or near 7110 Mhz, with my OHR QRP40. Hope to catch some of you then, or maybe later that week...

.073

--

```
+=====+
| Michael  email: ee115@po.cwru.edu          amateur call: kb8nkx |
|                               or: mflan@wariat.org      bbs/mud/irc: Charon |
+=====+
```

From ab4el.com Tue Jun 21 05:30:20 1994
From: "Andrew M. Cohn" <andy@clark.net>

Subject: Re: Field Paddles

Yes indeed, a mouse will make an excellent paddle for an electronic keyer. I have been using one for several months with my MFJ rig. It's a 2-button mouse which I found at a hamfest for 5 dollars. The index finger keys the left button for dits, and the middle finger keys the right button for dahs. Keep in mind that all mice are not created equal. Each has its own distinctive feel, based partially on the ergonomics (sp) and also on the travelling distance of the micro switches. It's best to shop around and play with different mice till you find one that has the best feel when pretending to send cw with the buttons. Personally, I found that leaving the mouse ball intact gives the device the extra weight it needs; but for best stability I placed 4 of those little rubber feet on the bottom--the self-adhesive kind you can find at radio shack. A mouse does take a bit of getting used to. I find that some concentration is required; if I start daydreaming or reading while sending cw, my fist gets a bit sloppy. I do best when I am actually watching my fingers key the mouse. But maybe that's because I'm more of a cooked goose than a spring chicken.

73, Drew - K4ADL

From ab4el.com Mon Jun 20 09:43:39 1994
From: Bob Smith <0005512847@mcimail.com>
Subject: Field Paddles???

Tom writes

Tom, AA7ZG was asking about field paddles for qrp systems. What I did was disassemble my vibroplex paddles and reassemble them on a piece of 1/4 inch plywood. From there, I rubberband them to my Yeasee (SP) 12v 1.5ah battery (2x4x1/2) makes a great base and double-duties some of that weight!

Bob, N3FTU

From ab4el.com Fri Jun 24 18:13:39 1994
From: swart@curry.shr.dec.com (Mark Swartwout)
Subject: Final list of QRP FD stations

Here's what I have as of 2146 UTC on Friday 24 June. Just a couple changes from yesterday. Sorry if anything got munged in transcription.

Thanks to all who submitted, and good luck.

Club/Group/Individual	Call Used	Location	QRP List Participants
=====	=====	=====	=====
QRP New England	W1FMR	Princeton MA	Bruce/WT1M, Jim/W1FMR

		Wind Farm	Mark/NX1K
W1HUE	W1HUE/7	Idaho Falls, ID	Larry/W1HUE
The Jimi Hendrix Experience	N1QDQ	Epsom, NH	Harry/N1QVE
Individual	W1TKZ	EMA section	Scott/W01G
Individual	W1VOQ	back yard in Bridgeport, Ct	Don/W1VOQ
Individual	KV2X	??	Thomas/KV2X
Individual (1B)	WA3NNA	from the beach near 23rd St. Ocean City NJ	Pete/WA3NNA
Tennessee Technological University	WA4UCE	Cookeville TN	Jeff/AC4HF
Zunilooper FD group	K6MDJ	Table Mountain Campground near LA	Wayne/N6KR, Fred/K6MDJ Doug/KI6DS, Chuck/K5FO Richard/KI6SN
W7EL and Friends	W7EL	Mountain Lakes OR	Roy/W7EL
Individual	WB7EEL/1	back yard in Boxborough MA	John/WB7EEL
Society for the Preservation of Low Energy, Electromagnetically-based Exchanges of Small Bits of Information during Limited Time Periods	WB8RUQ		Ron/WB8RUQ, N8HSC
WB8YGG/N2JGU	WB8YGG/2	Dansville NY	Brad/WB8YGG Gary/N2JGU
Individual	KB8NKX	Ocean Isle NC	Michael/KB8NKX
W/K ARC	N9AW	Milwaukee, WI.	Brian/AE9K, N9AW, WA9TZE, NK9G, N9JAK
Ski Country ARC	KI0G	Glenwood Spgs., CO	KI0G, K9MWM, K0RPX, et al
Colorado QRP Club	N0BF	Golden Gate	Paul/KB0LUR

		State Park, 20-30 miles West of Denver	
St. Louis QRP Society	N0ZZ	St Louis	Jim/N00CT
Durham Region QRP Club	VE3QDR	Tyrone, Ontario	Brien/VE3VAW

From ab4el.com Wed Jun 22 07:35:38 1994
 From: swart@curry.shr.dec.com (Mark Swartwout)
 Subject: Further on List of QRP Field Day Stations

I just went through the last couple weeks mailings and there were fewer posts than I had remembered. So please send your information to me, (private email please) in this format, and I will post a list the end of Thursday.

Club/Group/Individual	Call Used	Location	QRP List	Participants
=====	=====	=====	=====	=====
QRP New England	W1FMR	Princeton MA	NX1K,	W1FMR

deet deet <- modified to get ready for Mosquitos on FD weekend.
 Mark, NX1K

From ab4el.com Fri Jun 24 10:27:47 1994
 From: "W. Daniel" <pandora!daniel@Think.COM>
 Subject: Gary Breed 20M rx

Hi Gang,

One of my 6 projects underway is the Gary Breed rx in the ARRL handbook. My problem is finding the VFO and frontend filter coils. Does anyone know where I might find these inductors or if there are any alternative solutions? BTW I can get the MC3362 for about US\$1.55 each.

73,
 Daniel
 --

+-----+-----+-----+-----+-----+		
Daniel Wee	daniel%pandora@csah.com	** Man needs more
UUCP1.12b	daniel.wee@f516.n600.z6.fidonet.org	than a new start, he
SNEWS 1.91	csah.com!pandora!daniel	needs a new heart! **
+-----+-----+-----+-----+-----+		

From ab4el.com Tue Jun 21 11:42:46 1994
 From: FOXG@WCSub.CTSTATEU.EDU
 Subject: GEL CEL QUERY

A few years ago, I obtained an APS 4-6 "sealed recombination battery" (which

I take to be a gel cell). I have two 6v 4ah @ c20 (don't know what @ C20 means) cells in series for 12v. The batteries are marked cycle charging 2.4-2.45 vpc and float charging 2.25-2.30 vpc.

I recently ordered and received the ALL ELECTRONICS gel cell charger and charged these up. They quickly charged to about 12.7 volts but then under the tremendous strain of my NORCAL-40 quickly droppppped to approximately 10v or less on transmit (the NORCAL is rated at 200 ma on transmit). I left them under low load overnight (NORCAL receive is 13.8 ma on my unit) and by morning they were down to 9.4 v under no load.

Previously, I had been under the impression (mistaken?) that gel cells could be 'floated' across a standard regulated DC supply (13.8v)... and had done so for some time.

Are my cells injured? Do they need to be rejuvenated in some way or just tossed? Right now, they seem incapapble of holding a charge. They have never been used under heavy load.

Geoff WA1U
FOXG@WCSUB.CTSTATEU.EDU

From ab4el.com Wed Jun 22 11:04:28 1994
From: "Kearman, Jim" <jkearman@arrl.org>
Subject: Ham Key Straight Key

Well, it looks a little like a Brown Bros, but it isn't. It's a Ham Key straight key, black wrinkle base, red Navy knob, red and black terminals.

\$30 shipped UPS in the US.

73

Jim, KR1S

jkearman@arrl.org

From ab4el.com Mon Jun 20 10:30:21 1994
From: "Behrens J\vrg" <bhs@fh100.ubszh.net.CH>
Subject: ham-expo friedrichshafen

Is anybody else on this list planning to go to the Friedrichshafen (D) ham-expo? Would be nice to meet some of you experienced guy's. I'll probably take off friday in order to avoid the crowds.

73, Joerg (OHR-Spirit problem fixed some time ago - just a bad solder

joint! Recalling the question whether or not PhD's in physics could solder: there seems to be at least one who needs to improve... ;-)

From ab4el.com Sat Jun 18 12:44:24 1994
From: thomas beierlein <tb@HTWM.DE>
Subject: Re: Increased sensitivity of SWR meter

>
>
> I recently rebuilt the SWR meter portion of an MFJ matchbox which I intend
> to use primarily with my QRP rigs. Unfortunately the sensitivity is very
> poor at powers of <5W. The input transformer is a toroid with the primary
> being a screw through the center of the toroid & the center tapped
> secondary several turns of #30? wire. Can I increase the sensitivity by
> just adding more windings to the secondary, or is there a better approach.
> I'm really hurting for a good way to match my antennas to various QRP bands
> without it. Any advice is greatly appreciated. Thanks, de N2KTY/qrp (Gary)
>

That might be the wrong way.
If it is a current transformer you will get more sensitivity by removing
some windings of the secondary. Try it.

Thomas DL1JBE

From ab4el.com Thu Jun 23 22:45:29 1994
From: jjw@seastar.seastar.org (John Welch)
Subject: Interesting short all-band antenna

As a lark, Vikki & I decided to see just what we could do with an
all-band (HF through UHF) short verticle antenna. This is not exactly
a QRP story, so don't yell...

We contacted from Chicago IL to central PA on 20M's Maritime Mobile
net, with an S-4 report. Untill chased off by t-storms, she was on
40M's 3905 Century Club, talking with Alabama and Ohio, getting 3x3
reports. She ran 70 watts peak SSB, into an 8 inch clip lead draped
from the hot end of a Cantenna resistor at 15 feet.

That's 70 watts into a dummy load, working several hundred miles.
So, let's hear again how good the Isoloops must be to work 230
countries, eh? ;-)

--

John Welch, N9JZW

From ab4el.com Wed Jun 22 12:38:00 1994
From: "W. Daniel" <pandora!daniel@Think.COM>
Subject: Internet CQ propagation

Hi Gang,

I just thought about it, while you guys are at it you may want to come up with a propagation report, HI HI. Eg.

Calls have been bouncing, not due to low sunspots of course, but maybe faults reflectors etc etc... might be an interesting idea.

BTW, you can't sign /QRP here cos it don't make no sense. Unless you can arrive at a new definition of QRP for internet QSOs.

73,
Daniel

p.s. I have laid out the Curtiss 8044ABM keyer all on a 1"x1.5" board.
Anyone interested?

--

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+-----+-----+
| Daniel Wee | daniel%pandora@csah.com          | ** Man needs more
| UUCP1.12b  | daniel.wee@f516.n600.z6.fidonet.org |  than a new start, he
| SNEWS 1.91 | csah.com!pandora!daniel              |  needs a new heart! **
+-----+-----+
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From ab4el.com Wed Jun 22 14:45:46 1994
Subject: Re: Internet CQ propagation
From: "John F. Woods" <jfw@ksr.com>

> BTW, you can't sign /QRP here cos it don't make no sense. Unless you
> can arrive at a new definition of QRP for internet QSOs.

A PDP-11 with a 300 baud SLIP line.

> p.s. I have laid out the Curtiss 8044ABM keyer all on a 1"x1.5" board.
> Anyone interested?

Yes.

From ab4el.com Wed Jun 22 16:54:53 1994
From: xenolith@halcyon.com (Kevin Purcell)
Subject: Re: Internet CQ propagation

>> BTW, you can't sign /QRP here cos it don't make no sense. Unless you
>> can arrive at a new definition of QRP for internet QSOs.

>

>A PDP-11 with a 300 baud SLIP line.

>

>> p.s. I have laid out the Curtiss 8044ABM keyer all on a 1"x1.5" board.
>> Anyone interested?

>

>Yes.

And of course the SLIP driver (and the rest of the OS) would have to be hand toggled into core, not of that paper-tape nonsense.

I dunno nobody builds their own computers these days

: -)

Kevin Purcell, N7WIM / G8UDP

xenolith@halcyon.com

"Organising programmers is like herding cats"

(206) 649-6489

From ab4el.com Thu Jun 23 00:09:43 1994

From: Mike.Czuhajewski%hambbs@wb3ffv.ampr.org (Mike Czuhajewski)

Subject: Re: Internet CQ propagation

DE WA8MCQ QRP HR OM, RUNNING A '286 AT 12 MHZ BUT IT GETS OUT GOOD
SINCE I HAVE A 14.4K MODEM WITH LOW SWR 73...

--

Mike Czuhajewski, user of the UniBoard System @ wb3ffv.ampr.org

E-Mail: Mike.Czuhajewski%hambbs@wb3ffv.ampr.org

The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA

Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

From ab4el.com Thu Jun 23 11:31:21 1994

From: Warren E. Lewis <saswel@unx.sas.com>

Subject: It Works!! NORCAL40 building story

Well Folks...I've actually completed the NORCAL40 and it works!!
It took me about 2 weeks total time to complete. I worked on it a couple of hours every other day. This was first project that I have ever built (Unless you can count the Radio Shack spring loaded AM/SW receiver kit). The first couple of hours were spent learning how to solder properly. It is actually very funny to look at the really poor soldering job that I did on the first 20 or so components. The most frustrating part of building was counting and recounting the turns on the VFO toroid. Counting 62 tiny wire turns is pretty tedious.

When I hit the power switch the first time I was waiting for smoke and flames...but, alas nothing...not even a warm component. I had the multi-meter in series with the power supply and I was only getting .1 ma, not the required 15 ma. I got the magnifying glass out to see if I had any solder bridges or splashes. Everything looked good. Humm...maybe I should re-heat all the joints and see if maybe I had a cold solder joint. Before I

did that I started tracing the voltages in the circuit. And sure enough I found the culprit a bad joint right after the voltage regulator. Re-soldered that joint and hit the power thinking to myself, "Now here comes the smoke!!" But again, no smoke. I put the headphones on and to my surprise I hear that old familiar atmospheric static. The rest of the receiver and transmitter alignment was a walk in the park.

I attribute my success to the great instructions, great board layout, and to the fact that I was very meticulous and took extra time making sure each component was in its proper place and orientation before I soldered it on. Also only working on it a couple hours at a time kept me from getting fatigued and making any silly mistakes.

It sure is a thrill to see something that you put together work properly. Now I need to get an antenna up that will tune up on 40 meters with my antenna tuner, so I can do what I really want to do...make that first contact with a rig that I have built!!!

Thanks NORCAL QRP Club(especially Wayne and Doug) and everybody on the QRP list for your words of wisdom and encouragement!!

- Warren

Now I want to build one of Jeff Herman's QRP projects...finding some of the replacement parts should be interesting. Has anybody tried building the 80 Meter transmitter with VFO?

--

Warren E. Lewis
Technical Support Division
SAS Institute Inc.
Cary, NC

saswel@unx.sas.com
(919) 677-8001 x6542
PP-ASEL
KD4YRN DOD#0021

From ab4el.com Fri Jun 24 16:18:52 1994
From: "Evert Halbach" <CS-ERH@nich-nsunet.nich.edu>
Subject: Kenwood TS-930S

Can anyone tell me the lowest power I can run out of a 930s??? A friend of mine has a 940 and tells me that the lowest he can go is about 10-12 watts. I would like to run the 930 on QRP and be able to use the added features....

73 de WA50JI Evert

Evert R. Halbach WA50JI

Internet - cs-erh@nich-nsunet.nich.edu
Phone - (504) 448-4999
Snail - P.O. Box 2168 Thibodaux, La. 70310

From ab4e1.com Thu Jun 23 14:35:03 1994
From: "W. Daniel" <pandora!daniel@Think.COM>
Subject: Keyer PCB format

Hi Gang,

Sorry, I can't put the PCB out in postscript format.

In any case, while you are deciding on which format, I have decided to do a run of about 6 boards and to get some of the "size sensitive" components, such as a mini preset that will go into the holes for the board. The speed adjustment is off the board. The iambic board has a 78L05 on it and so runs off about 7-15 volts. How does that sound. If I am going to include the mini preset, I may have to add some 30 cents to the overall cost, bringing the board and preset, and maybe some caps to about US\$2.30, mailed in an air-mail envelope. Though I am wondering if it might be a bit troublesome to send the coins. Hope this isn't too expensive.

How does that sound to you people? 6 boards should be ready soon and I will try to print out a decent component overlay. I have had a number of requests but you have to make it formal so I will count the requests, on a first come first served basis from this posting on.

Note, this is a transistored keying, NOT suitable for valved rigs, unless a relay is added. I can still make the layout available if I can find a suitable ftp site to place it on, also the format thing has to be settled first.

73,
Daniel

--

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| Daniel Wee | daniel%pandora@csah.com | ** Man needs more
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| SNEWS 1.91 | csah.com!pandora!daniel | needs a new heart! **
+-----+
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From ab4e1.com Fri Jun 24 15:44:38 1994
From: nmodena@unity.ncsu.edu
Subject: knobs

I was in one of the local (smaller) hardware stores today, and noticed a box of "appliance knobs"...a nice assortment of what otherwise would be homebrewer knobs, each with a nice brass fitting and screw.

73/Steve/AB4EL ab4el@Cybernetics.NET

From ab4el.com Thu Jun 23 17:56:47 1994

From: swart@curry.shr.dec.com (Mark Swartwout, NX1K)

Subject: List of QRP Field Day Operations

Here's what I have as of 2100 UT on Thursday 23 June. Sorry if anything got munged in transcription.

I'll send an update late Friday if I get any new or changes.

Club/Group/Individual =====	Call Used =====	Location =====	QRP List Participants =====
QRP New England	W1FMR	Princeton MA Wind Farm	Mark/NX1K Jim/W1FMR Bruce/WT1M
WB8YGG/N2JGU	WB8YGG/2	Dansville NY	Brad/WB8YGG Gary/N2JGU
W7EL and Friends	W7EL	Mountain Lakes OR	Roy/W7EL
W1HUE	W1HUE/7	Idaho Falls, ID	Larry/W1HUE
KB8NKX	KB8NKX	Ocean Isle NC	Michael/KB8NKX
Ski Country ARC	KI0G	Glenwood Spgs., CO	KI0G, K9MWM, K0RPX, et al
Durham Region QRP Club	VE3QDR	Tyrone, Ontario	Brien/VE3VAW
Individual (1B)	WA3NNA	from the beach near 23rd St. Ocean City NJ	Pete/WA3NNA
Individual	W1VOQ	back yard in Bridgeport, Ct	Don/W1VOQ
Society for the Preservation of Low Energy, Electromagnetically-based Exchanges of Small Bits of Information during Limited Time Periods	wb8ruq		Ron/WB8RUQ, N8HSC
W/K ARC	N9AW	Milwaukee, WI.	Brian/AE9K, N9AW, WA9TZE, NK9G, N9JAK
Individual	KV2X	??	Thomas/KV2X

Tennessee Technological WA4UCE Cookeville TN Jeff/AC4HF
University

Colorado QRP Club N0BF Golden Gate Paul/KB0LUR
 State Park,
 20-30 miles
 West of Denver

From ab4el.com Wed Jun 22 06:55:50 1994
From: swart@curry.shr.dec.com (Mark Swartwout)
Subject: List of QRP list Field Day Stations?

Has anyone compiled a list from the many postings of who will be operating Field Day? If I don't hear anything (private email please) by the end of today, I will go through the last couple weeks postings and make a list. I was thinking about something like:

Club	Call Used	Location	QRP List Participants
QRP New England	W1FMR	Princeton MA	NX1K, W1FMR

which would make a handy reference to have on the weekend. With many of us using club calls, this might make it easier to find each other.

deet deet <- modified to get ready for Mosquitos on FD weekend.
Mark, NX1K

From ab4el.com Wed Jun 22 20:40:01 1994
From: Jeffrey Herman <jeffrey@math.hawaii.edu>
Subject: Miller Coil Forms; Hep x-sistors.

Gang: I've got a circuit diagram for a 25 Mc output VFO that uses three HEP 2 transistors. I'm going to build three of them and use them as QRP xmtrs on 15, 12, and 10M. The book which contains this circuit is from '68 and I'm wondering what the availability of these HEP transistors are.

Also, it calls for three J.W. Miller coil forms, type 4500. Anyone know the particulars of this type 4500 form (actually only need the diameter)?

L1: 11T #30 wire close wound
L2: 12T
L3: 15T

This is for 25 Mc output. If only he would have given the actual

inductances. Phooey.

Jeff NH6IL

From ab4el.com Thu Jun 23 00:32:24 1994
From: "W. Daniel" <pandora!daniel@Think.COM>
Subject: Mini Iambic keyer PCB

Hi Gang,

Lets see if anyone is interested if I made these little boards which use the 8044AMB (actually if could be smaller if I had used the 8044AB instead), and sold it for US\$2.00 mail pre-drilled with a componenet layout diagram? Jumper under the IC selects mode A/B.

Also, is there somewhere where I can post the mask for this board for those who are interested? I am using Protel software so I will probably post it in their PCB and SCHEMATIC format. Maybe if there are enough people who want it is .RTL (HP dump) format I can do that too.

73,
Daniel

p.s. Working on a PCB for frequency counter based on the 1994 ARRL Handbook project on a 3"x1" board.

Have done but not tested a MOSFET amplifier (12-13.8V supply) for 20M, input 1-3 watts, output up to 35 watts. Size 1.6"x3.9"

73,
Daniel

--

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+-----+-----+
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| SNEWS 1.91 | csah.com!pandora!daniel | needs a new heart! **
+-----+-----+
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From ab4el.com Thu Jun 23 17:01:17 1994
From: "W. Daniel" <pandora!daniel@Think.COM>
Subject: Mini Iambic PCB

Hi Gang,

Okay, I've done it, not the PCBs but the postscript output for the scale 1.000 mask and the scale 2.000 overlay and component list. I decided

this was more in keeping with the homebrew spirit. Not to mention the fact that mass producing these PCB's aren't exactly a fun thing to do alone.

However, for the sake of those who do not know how to make PCB's or do not have the facilities to do so, I will still consider making the PCB for you if you are interested. Please e-mail me formally requesting the PCB in that case and I will know you want it. Include mailing address too. I think the cost will be about US\$2.00 for the PCB alone.

In the event that the mini-preset on the board, for the weight adjustment, is not available, you can either wire it with a fixed resistor to your favorite weighting (which you seldom adjust anyway) or I could obtain the part for you guys.

Now, if someone can kindly offer an ftp site for me to upload the .ps files, I will do so ASAP. How does this sound to you guys? The 2 files are sitting in my directory, waiting for somewhere to go.

73,
Daniel
--

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+-----+-----+
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From ab4e1.com Thu Jun 23 23:29:36 1994
From: "W. Daniel" <pandora!daniel@Think.COM>
Subject: Mini Iambic PCB

Hi Gang,

For those interested, here's the component list for the keyer.

U1	78L05
U2	Curtis 8044ABM
D1,D2	IN4148
D3,D4	IN4007
R1	56k, 5% 1/4 watt carbon film
VR2	Mini preset 470k or 500k
R3	220
R4,R7	1M
R5	10M
R6,R10	470
R8	47k
R9	4.7k

R11	91k
VR12	500k potentiometer
C1,C5	0.22, mini profile multilayer
C2	not used
C3	0.1
C4,C6,C8	0.01
C7	0.15

All of this goes onto a 1" x 1.5" board with space for 3 mounting holes. Should I pre-drill the mounting holes or should I leave it up to you to drill which holes suit you guys most? Suggestions? There are 2 jumpers positions on board to select Mode A or Mode B keying but you install only ONE jumper. Other than that, all on board connections are routed without jumpers. Its pretty dense but not crammed. Off board connections are:-

+Vcc	7-18V power supply, on board regulated 5V
Manual Key	optional but for those who want both, like me.
Dot paddle	
Dash paddle	
VR12 Speed	high side
VR12 Speed	low side
Gnd	

The profile of this board is limited by the vertically mounted 1/4 watt resistors. Hope this gives you a pretty good idea of what you're in for. I can't say the board quality is the best as I am doing this myself. I am using a computer to lay out the board so you won't see ugly tracks, and photo-exposure to get the mask on. This results in very good definition tracks. However, I cannot tin the tracks or solder mask it. Instead I leave the photo resist on, which looks like green enamel and protects the board, and you can solder through the resist or if you like, remove it with alcohol or some mild solvent. I thought this is a good alternative to solder masking. Soldering through the resist is easy, no effort at all. The only thing may be my cutting of the board. The board is fibre-glass material and VERY difficult to cut, I will file the sides of the board for a smooth finish and I hope it will look good enough for most of you. Ok, that's it.

FYI I am in Singapore, that's half-way round the world from most of you. So I'd like to keep the partial kit as partial as possible. This will ease my mailing them out. As such I will probably supply only components which you can't get or are too expensive to get there.

For those who have inquired, my address is:-

Daniel Wee
 7 Mount Sophia Road
 Singapore 0922

SINGAPORE

BUT do not send anything yet, I will announce when I am ready to send, then you can send the money, and please, no checks. \$US checks are a nightmare to handle around here.

73,
Daniel

--

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+-----+-----+
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| SNEWS 1.91 | csah.com!pandora!daniel | needs a new heart! **
+-----+-----+
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From ab4e1.com Sun Jun 19 12:31:43 1994
From: "W. Daniel" <pandora!daniel@Think.COM>
Subject: MOSFET RF Amp

Hi Gang,

Can anyone advise me on my earlier post regarding MOSFET push-pull RF amps? I would really like to hear some comments on the circuit before I commit it to PCB. My layout is done, I am going to etch the board in the next few days, awaiting some comments. Please advise.

BTW, just for the record, which is a better performer? IRF511/510 or the MTP3055E? Can I just plug an IRF511/510 in place of an MTP3055E? What are other good FETs for RF amplifier use up to 25 MHz or so? Especially those which I can use to replace MTP3055Es? Japanese parts are ok for me as they can be obtained in abundance around these parts.

73,
Daniel

--

```
+-----+-----+
| Daniel Wee | daniel%pandora@csah.com | ** Man needs more
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| SNEWS 1.91 | csah.com!pandora!daniel | needs a new heart! **
+-----+-----+
```

From ab4e1.com Mon Jun 20 15:41:22 1994
Subject: Re: MXM xcvr problems
From: Daniel C Halbert <halbert@world.std.com>

Regarding unstable VFO's: W7EL suggests making sure that the VFO inductor and capacitor are grounded at the same point. This avoids

circulating currents which can get into the VFO tank. For instance, don't just rely on the metal chassis to connect the variable cap frame to the grounded end of the inductor.

This hint helped me greatly in getting chirp out of an Ugly Weekender. It sounds like you may have already achieved something close to this with your adding of extra wire.

Dan Halbert, KB1RT

From ab4el.com Mon Jun 20 15:58:43 1994
Subject: Re: MXM xcvr problems
From: Daniel C Halbert <halbert@world.std.com>

Re image breakthrough: It looks like there's just a single-tuned filter for 14 MHz (the IF transformer). The pi filter is low-pass, so it's not going to block out 6 MHz.

I have several times found that a singly-tuned front end for a superhet just doesn't cut it, despite lots of older projects presenting such a design. I've had to replace them with doubly-tuned front-ends (using the filters in the back of Solid-State Design for the Radio Amateur), and have had great improvement.

Another note about QSK T/R circuits: if the T/R "switch" is made out of a pair of back-to-back diodes, one reversed (as in the Optimized QRP Transceiver), try using two diodes in series each way. Otherwise you can get IMD if the signal levels are really high. I had a 40m superhet which sounded much better after I made this fix.

Regards,
Dan, KB1RT

From ab4el.com Sun Jun 19 02:01:08 1994
From: dh@deneb.csustan.edu (Doug Hendricks)
Subject: Need TDA2030H Chip

Does anyone know of a source of a TDA2030H IC? It is a 5 pin audio amp and goes in a SSB kit that I am building. Fried it tonight when I reversed the leads to the power jack. Yeah, dumb move on my part, but definitely a learning experience. Now I know the true meaning of a "smoke test". The kit is from England, so it may not be available in the states. How about the members on here from England? Can you assist me? 72, Doug, KI6DS

From ab4el.com Sun Jun 19 08:18:49 1994
From: James Lyons <jlyons@CAM.ORG>

Subject: Re: Need TDA2030H Chip

On Sat, 18 Jun 1994, Doug Hendricks wrote:

> Does anyone know of a source of a TDA2030H IC? It is a 5 pin audio amp and
> goes in a SSB kit that I am building. Fried it tonight when I reversed the
> leads to the power jack. Yeah, dumb move on my part, but definitely a
> learning experience. Now I know the true meaning of a "smoke test". The kit
> is from England, so it may not be available in the states. How about the
> members on here from England? Can you assist me? 72, Doug, KI6DS

In the ECG catalog there is a TDA2030 and a TDA 2030BV, both have the ECG
equivalent 1380 listed as an IC-AF P0, 14 w, Vcc=14V RL=4ohm.
Sorry I don't have one.

Jim, VE2KN

From ab4el.com Mon Jun 20 10:02:34 1994
Subject: Re: Need TDA2030H Chip
From: "John F. Woods" <jfw@ksr.com>

As an extrememly quick guess, you might try MCM Electronics; they are a
service shop supplier, and this is the kind of chip they stock (unfortunately,
the catalog is at home so I can't verify this one). 1-800-543-4330.

From ab4el.com Sun Jun 19 00:59:26 1994
From: stark <mswmod@sage.unr.edu>
Subject: NorCal40 Partial

Hi all,

Got back from Utah and there was the NorCal40 partial kit.
Sure looks nice. This will be the first kit since I built
a EICO AM/FM Stero kit back in 58.

And no, the radio tuner would not do stereo. Back then they
would send one channel on AM and the other on on FM.

Opps, there I go again, letting my age show.....

Now all I have to do is scrounge all the parts.

73's & cul, Ron

.....KU7Y.....
.....Monte "Ron" Stark.....
.....Sun Valley, Nevada.....

From ab4el.com Fri Jun 24 11:00:51 1994
From: "W. Daniel" <pandora!daniel@Think.COM>
Subject: Notification of Error in Handbook

Hi Gang,

I thought it would be helpful if I pointed out some of the track errors in the Gary Breed mask provided in the ARRL Handbook. So far I have only checked the RX board and there are a number of errors. There are errors on the TX board mask too but I haven't determined where exactly.

In the 1994 edition, most of the errors on the RX board had been corrected except for pin 11 of the LM243 (U2) which should be grounded, the ground track was mis-routed to pin 12 instead. You should change the track which runs between the IC from ground to 11 instead of 12.

In the 1993 edition, there were even more errors. A track going from the 4.7 uF electrolytic was misrouted to pin 6 instead of pin 7. Likewise for U4, the LM386, the track leading to pin 7 was mis-routed to pin 6 instead. As a result pin 7 on both U3 and U4.

The capacitor at pin 1 of U2 should be 0.1 uF which is correct in the 1994 edition but in the 1993 edition is stated as 0.01 uF. The capacitors, the two 300 pF at pins 3 and 4 of the MC3362 (U1) should be changed to silver mica 220 pF instead.

Hope this helps some of you who have given up. Now is the time to revive that project.

73,
Daniel

--

```
+-----+-----+
| Daniel Wee | daniel%pandora@csah.com | ** Man needs more
| UUCP1.12b | daniel.wee@f516.n600.z6.fidonet.org | than a new start, he
| SNEWS 1.91 | csah.com!pandora!daniel | needs a new heart! **
+-----+-----+
```

From ab4el.com Tue Jun 21 17:01:39 1994

From: "Kearman, Jim" <jkearman@arrl.org>
Subject: Nye "Black Master" Key

Thanks to Kevin, KB9IUA, for helping to ID the second key I posted as a Nye-Viking Black Master. It's still available for \$25, but the Brown Bros key is sold.

73

Jim, KR1S
jkearman@arrl.org

From ab4el.com Thu Jun 23 14:35:03 1994
From: "W. Daniel" <pandora!daniel@Think.COM>
Subject: OHR QRP SWR/Watt meter

Hi gang,

Can anyone tell me anything about this OHR QRP SWR/Wattmeter. I've heard many praises for it but haven't heard why? Is this simply a reflecto meter or a direct reading SWR meter? Cross needle type? What special features make it good? Better than the little ones from MFJ?

73,
Daniel

--

```
+-----+-----+
| Daniel Wee | daniel%pandora@csah.com | ** Man needs more
| UUCP1.12b | daniel.wee@f516.n600.z6.fidonet.org | than a new start, he
| SNEWS 1.91 | csah.com!pandora!daniel | needs a new heart! **
+-----+-----+
```

From ab4el.com Fri Jun 24 10:23:59 1994
From: "Robert E. Easton" <bobea@watson.ibm.com>
Subject: OHR QRP SWR/Watt meter

The OHR meter is a directional wattmeter with 3 scales measuring 1-10W, 0-1W, and 0-100mw. I don't have the reference handy, but it is almost identical to one featured in a QST article several years ago, and reprinted in one of W1FB's QRP books. It is a classic Breune circuit. No, it is not a direct reading SWR meter, nor is it a twin needle affair. There's a FWD/REV switch, and you can easily plug the readings into the standard SWR formula (mine's programmed into a HP calculator.) Calibration is via an accurate digital voltmeter estting pots for each scale; simple.

The "many praises" are probably about OHR's first rate kits. The PC boards

are double-sided, plated thru, parts screened, and solder masked. The cabinets are weel built and nicely screened, but a little "too roomy" for some folks.

73 -- Bob, N2IPY

From ab4el.com Tue Jun 21 09:08:36 1994
From: adams@chuck.dallas.sgi.com (Chuck Adams)
Subject: QRP Club rankings

I think that I'll still stand by my previous ordering of clubs based on ACTIVE memberships. I know that some of the clubs that Doug mentioned have a larger base but their current active membership is way down from the maximum. I could be wrong, but I have info from a person that I think is a very reliable source.

I think the people who are really in the know aren't going to tell us everything. :-)

dit dit
Chuck Adams K5FO CP-60
adams@sgi.com

From ab4el.com Tue Jun 21 09:57:35 1994
From: prvalko <prvalko@vela.acs.oakland.edu>
Subject: Re: QRP Club rankings

On Tue, 21 Jun 1994, Chuck Adams wrote:

>
> I think the people who are really in the know aren't
> going to tell us everything. :-)
>
Well, the Michigam QRP club has almost one million active members.

Impossible? ...and yet it's true.

73 =paul= wb8zjl M-QRP# 899,000

or was that 000899 ?

From ab4el.com Tue Jun 21 12:33:17 1994
From: Brad Mitchell <bmitchel@CBA.Kodak.COM>
Subject: Re: QRP Club rankings

>
> I think that I'll still stand by my previous ordering
> of clubs based on ACTIVE memberships. I know that
> some of the clubs that Doug mentioned have a larger
> base but their current active membership is way down
> from the maximum. I could be wrong, but I have info
> from a person that I think is a very reliable source.

>
> I think the people who are really in the know aren't
> going to tell us everything. :-)

>
> dit dit
> Chuck Adams K5FO CP-60
> adams@sgi.com

>
>
Common Chuck, clubs come and clubs go, previous clubs have gotten us where we are today. While you were worrying about clubs I designed a 27 band all mode qrp rig with an automatic antenna tuner for under \$50 :-)

By the way what does active mean relative to clubs? builds kits?,
sells kits? Hates kits,
operates on the AIR? or talks on internet? Am I more or less active if I
wind torroids? Do Active members glow?

oops gotta run, going to the qrp convention in Sao Paul...:-) 73
Brad, WB8YGG

From ab4el.com Fri Jun 24 19:19:36 1994
From: "Todd W. Carter" <tcarter@access.digex.net>
Subject: QRP digest table of contents?

Does anyone know what happened to the table of contents that once was on
the top of every digest message? It sure is handy for quickly seeing
what messages I'd like to read.

Thanks,

Todd
N8ODP

From ab4el.com Wed Jun 22 10:12:30 1994
From: "JEFF M. GOLD" <JMG@tntech.edu>
Subject: QRP Field Day Stations

WA4UCE, the Tennessee Technological University club station will most likely have a QRP station on the air from the park on campus in Cookeville, TN.. operating Gel Cel and most likely my Yaesu 301S with a modifed G5RV (ZS6????). Planning on both CW and SSB.

If that doesn't work, I will most likely work QRP from nearby under AC4HF

73,72

Jeff

From ab4el.com Thu Jun 23 08:42:39 1994
From: "Evert Halbach" <CS-ERH@nich-nsunet.nich.edu>
Subject: QRP Wattmeter

What do you guys use for QRP Wattmeters?????

I tried a Radio Shack SWR/Wattmeter and doesn't seem to be too accurate. I also tried E2/R and am getting tired using the pencil.

Do they make a 5-Watt HF element for the Bird Wattmeter??? I think this would be the best route.

Without looking in the QRP books I have has anyone built one or know where I can get info for one???

Thanks es 73 de WA50JI Evert

Evert R. Halbach WA50JI
Internet - cs-erh@nich-nsunet.nich.edu
Phone - (504) 448-4999
Snail - P.O. Box 2168 Thibodaux, La. 70310

From ab4el.com Mon Jun 20 21:32:01 1994
From: Stephen@stevef.demon.co.uk (Stephen John Farthing)
Subject: qrp-digest V1 #13 Supplier of TDA2030

Doug,
In the latest edition of the Cirkit catalogue the TDA 2030 is listed as part no 61-02030
price Sterling Pounds 1.65. I am not sure what the significance of the H suffix is

on the
Chip Number you quote.

Cirkits address is :-

Park Lane,
Broxbourne,
Herts,
UK
EN10 7NQ

Phone 0992 - 448899

24 Hour Order line 0992 440779

They quote postage and packing of Sterling Pounds 6.0 for air mail which seems somewhat expensive. I intend to order some stuff from them in the next couple of weeks so if you can wait I'll get you one and send it on to you. E Mail me if you wish me to do this.

Steve Farthing | stephen@stevef.demon.co.uk |
Melksham "I'm pink therefore I'm Spam"
Wiltshire UK

From ab4el.com Sun Jun 19 23:02:04 1994
From: N8ET@delphi.com
Subject: R1/R2/T2 Update

I had a bit of a setback this weekend - Came home Friday evening in a thunderstorm, and found that a nearby bolt of lightning had taken out everything on one outlet strip in the shack - The list included two computers, a couple of two meter radios and two power supplies. So instead of working on the kits, I spent the weekend assessing damage. Some of the stuff got replaced at a hamfest on Sunday, but I have now found I need still more replacement parts to get the work computer going again. The insurance co. will get a call at 9AM Monday, and hopefully they will tell me to go ahead and replace everything....

On the bright side - I did get the parts ordered so I can build up the R2 and T2. Rick told me he shipped some PC boards, so I should have boards for the T2, R2, and miniR2 this week. There will be no R1 boards for about 6 weeks.

Assuming the insurance co lets me replace tmrw, I will have some pricing and a "pre-stock" order announcement out late this week. I will also get descriptions out in the next day or so for those of you who are

wondering what the R1/R2/T2/miniR2 is all about....

So far - about 50 responses from the note on the list last Sunday.

72/73 - Bill - N8ET

From ab4el.com Fri Jun 24 22:48:54 1994

From: Mike.Czuhajewski%hambbs@wb3ffv.ampr.org (Mike Czuhajewski)

Subject: Re nail-cored coils

I'm baaaaack...I tried the nail-cored-coil-on-a-straw trick as promised, and, as expected, results were hideous. The fine print--

Coil form: generic plastic drinking straw, about 1/4" dia

Winding: 30 or 31 turns #22 enamelled wire

Test equipment: Boonton 260A Q meter

Test frequency: 7.9 MHz

Test cores: 8-penny finishing nails; #10 wood screw; mongrel powdered iron core from output area of old CB radio

I wound the wire tightly on the straw, then let it spring back where it wanted; I did not try to compress it fully, but did not disturb it during the test, either.

Initial measurement with no core showed an inductance of 1.33 uH and Q of 104. I inserted one 8 penny nail fully; interestingly enough the inductance dropped, instead of increasing as I expected. However, the Q did just what I anticipated--it plummeted. The new inductance was 1.26 uH and Q = 11. I added a second nail beside the first, and had to guess where the peak on the meter was--it appeared that the inductance moved down slightly to 1.24 uH but it was hard to see the meter movement at resonance. Even on the low Q range I could barely see the needle move, and estimated the Q at 2 or 3 (!).

Next, I tried the #10 wood screw, fully inserted. It gave a substantially lower inductance of 0.94, and Q of 5. I used a magnet to verify that the screw and nails were actually steel.

Finally, to regain my sanity I inserted the slug from the CB coil, type unknown but probably powdered iron of fairly low permeability, since it came from the output area of the radio. It was perhaps 3/16" diameter, and about 5/16" long. I tried it in a couple different positions within the coil and got readings of 1.69 uH and Q=114, and 1.80 uH/Q=97.

I'm not an engineer, but I suspect one of them would shudder if you used a nail at audio, much less RF of any sort. The bottom line, which was always intuitively obvious to me but now proven to be true as well, is that plain iron/steel makes a lousy core material for RF.

As always, for any coils that you wind, use a core material appropriate for the frequency.

73 and Queue Our Pea DE WA8MCQ

--

Mike Czuhajewski, user of the UniBoard System @ wb3ffv.ampr.org
E-Mail: Mike.Czuhajewski%hambbs@wb3ffv.ampr.org
The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA
Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

From ab4el.com Tue Jun 21 17:51:39 1994
From: "PDXML1" <PDXML1@pdxml1.mentorg.com>
Subject: READDRESS AND RESEND

Mail*Link(r) SMTP qrp-digest V1 #12
Received: by pdxml2.mentorg.com with SMTP;18 Jun 1994 00:52:41 U
Received: from mgc.mentorg.com by rainbow.mentorg.com with SMTP
(15.11.1.6/15.5+MGC-TD 2.08) id AA02645; Sat, 18 Jun 94 00:47:10 -0700
Received: from Mail.Think.COM by mgc.mentorg.com with SMTP
(16.6/15.5+MGC-TD 2.20) id AA05189; Sat, 18 Jun 94 00:47:07 -0700
Received: by mail.think.com; Sat, 18 Jun 94 03:30:11 -0400
Date: Sat, 18 Jun 94 03:30:11 -0400
Message-Id: <9406180730.AA20358@mail.think.com>
From: owner-qrp-digest@Think.COM
To: qrp-digest@Think.COM
Subject: qrp-digest V1 #12
Reply-To: qrp@Think.COM
Errors-To: owner-qrp-digest@Think.COM
Precedence: bulk

qrp-digest Saturday, 18 June 1994 Volume 01 : Number
012

From: adams@chuck.dallas.sgi.com (Chuck Adams)
Date: Fri, 17 Jun 94 14:36:22 -0500
Subject: Congratulations NorCal

Gang,

Congratulations are in order for the rapidly growing club, Northern California QRP Club, founded June 1993. In just one short year they have grown to the third largest club in the world, behind QRP-ARCI in second

place, and G-QRP which is in number 1 place.
This based on active membership.

Again, this is a remarkable achievement.

If I had to guess at why it's working, and I knew you were gonna ask, I'd put down in writing from the top of my pointed head the following:

1. The leadership of the club makes it fun.
2. They are out doing things.
3. Club projects like the NorCal 40 and the Sierra help a great deal to raise the interest level.
4. A dynamic newsletter and editor thereof.
5. Regular meetings, although informal, keep people in touch with one another. You don't feel left out of fun.
6. They have avoided petty politics and don't seem to have any single member with an unmanagable ego.
7. They've got something for all ages. No Old Foggie syndrome as I call it.
8. Informal contests. Lots of work on mods for the club projects.

I think we all can learn from this. Take notes and JUST DO IT. If your section of the country within a 150 mile radius doesn't have a local QRP, then you get off your butt and get one started. If you need help, just ask Doug Hendricks or any of the others on this mailing group. Both Doug and I (I'm volunteering Doug here without prior notice :-)) will give you free publicity in the QRPp and K5FO newsletters. Also, announce it on the QRP think.com mailer. Inquiring minds just gotta know.

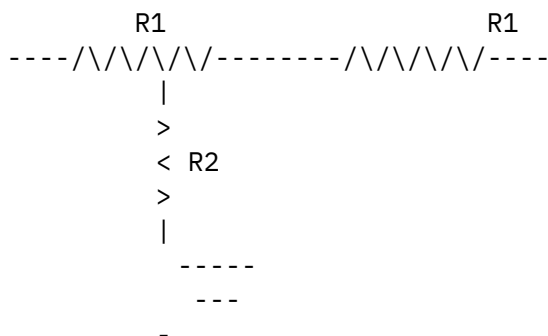
NorTex just hit 250 members in 30 days!!! Announce it, they will come.

dit dit
Chuck Adams K5FO CP-60
adams@sgi.com

From: "John F. Woods" <jfw@ksr.com>
Date: Fri, 17 Jun 94 16:12:02 -0400
Subject: Re: Resistive attenuators

ARRL Handbook, "Test Equipment and Measurement".

Since I have it handy, a 6 dB T pad would be



R1 = 16.6 ohms, R2 = 66.9 ohms. I would suspect 2W (metal oxide) resistors should suffice for all, but this should be analyzed more carefully.

From: teda@meaddata.com (Ted Albert)
Date: Fri, 17 Jun 94 16:41:31 EDT
Subject: Re: construction methods

> I would question very much the use of wire wrap in marine gear. The marine environment is not very friendly to electronics and a mechanical rather than a soldered connection might be prone to salt and moisture finding their way between the terminal and the wire. At least that's my opinion.
> Hmmm, maybe the manufacturers do this on purpose in order to do periodic

> 'costly' repairs...

I questioned it as well, but his response was that done properly,
wire-wrap
was superior to soldered connections and withstood the corrosive effects
of
being out on the high-seas. We were talking about commercial maritime
HF gear, not the stuff you get for pleasure boating.

>

> I use point-to-point on wooden blocks for my xmtrs; screws driven into
> the wood act as terminal points. Talk about ugly construction....
> I'm always amazed that these things actually transmit.

>

Well I managed to get the components mounted on the pins last night, fired
it up and smiled when it did work. I had so much fun tinkering with it
that
I lost track of time last night. Now I am paying the price at the office
this
afternoon.

I followed the rules about not getting obsessed with exact part values, so
I
used what I had on hand in the circuit, a speech amp, sounded great on the
test
bench. Tonight the balanced modulator goes on the card with point-to-point
wiring. If I am lucky, I will be able to inject some drive from my old WRL
755
VF0 this evening to test the balanced modulator.

73 de Ted, KF8EE

From: mvjfm@mvubr.att.com (James M Fitton +1 508 960 2577)
Date: 17 Jun 94 20:52:00 GMT
Subject: k3ta

Cameron, your adr bounced. Is it correct ? W1FMR

From: C=BAILEY%IS%211EIS@ANG193FS.af.mil

From: B61395@awtims.fe.anlw.anl.gov
Date: Fri, 17 Jun 1994 15:14:16 -0600 (MDT)
Subject: Attenuators

I think you will find design info for resistive attenuators in the ARRL Electronics Data Book.

diddleydahdidah (c) 1977 WB8RXN, Reproduced with permission.

73 de KR8L (wparmley@anl.gov)

From: dh@deneb.csustan.edu (Doug Hendricks)
Date: Fri, 17 Jun 94 14:20:50 PDT
Subject: QRP CLUBS

Gang,
First of all, NorCal is not the third largest QRP club, that honor belongs to the Michigan club, which has about 13 or 14 hundred members I think, maybe Paul can correct me, but at least that many. But who is counting? It does not matter how big the club gets, just that you have an active club. This is a fun hobby, and too many times people forget that. I would be more than happy to help anyone form a club, but I am not sure that I am the one to ask. Jim Fitton is my personal club guru, and he is the resident expert along with George Dobbs in England.

Here is a simple formula for a QRP Club. You need at least 3 key people, the Coordinator, a newsletter Editor, and a Technical Advisor.

Those positions are filled in NorCal by:

Coordinator: Jim Cates, WA6GER

Newsletter Editor: Doug Hendricks, KI6DS

Technical Advisor: Wayne Burdick, N6KR

[Note that this is not original, but from Jim Fitton, W1FMR, who told it to all of us at Dayton in 1993.]

Jim's job is to make sure that everything gets done. He is very organized and thorough, as those of you who have delt with him by now know. He is the

contact for correspondance, orders of kits, new members, etc. Jim is very,
very patient and a kind human being who loves to help people.

My job is to edit and publish QRPP. I go after information and articles aggressively. The purpose of QRPP is to publish and share pertinent QRP information that has not been widely distributed previously. Some of my sources are internet, personal contacts (many made at Dayton, Livermore, and the Foothill hamfests), club meetings, other club newsletters, and things that show up in the mail. I think that it is neat to get someone to publish who has something new to offer. It accomplishes two things, one it preserves it for history, and it makes others aware of the idea, so that they can use it for their particular applications. One of the things that I insist on is that permission be obtained for publication of all articles. That is only fair and good manners. Some of the things that I think a good club journal has are:

1. On Time!! (ARCI horror stories abound!!) Fix a time for mailing and stick to it. If you want to bulk mail, contact me and I will tell you some "hints from experience".
2. Use the same font through out the journal. Don't hand copy schematics, don't just photocopy material, retype it in.
3. Decide upon a format and don't change. QRPP is the size it is because that is the easiest size to keep and store. (I stole the idea from George Dobbs).
4. Print articles of wide interest. Also, try to have various types of articles so that you will have something of value to all members.
5. Print legible schematics [QRPP needs to work on this, and I am].
Do not use hand drawn schematics. There is a great program called KeyCad that costs \$19.95 and draws wonderful schematics. If you can't afford that, you can't afford to put out a club newsletter! Take pride in the appearance of your work.

6. Be prepared to take criticism. Some of it is helpful, some of it

is cruel, but if you are trying to do the best job that you can,
you will sleep at night. Take the useful hints and apply them, throw
the cruel stuff out of your mind and consider the source.

7. Search out articles. Make it easy to submit. Offer to take it
in any format, you can clean it up and make it useful. Ask others
to write for you. Suggest articles to qualified people. It works
wonders, just look at QRPP.

8. Don't be concerned with size. If you have 8 pages of quality
info, so be it. Go for quality.

9. Be prepared to spend your own money on the newsletter. I do it
because I enjoy it and I get satisfaction out of it. Every
newsletter editor that I know spends his own money on his journal.

10. Be active. Go to meetings, hamfests, swapmeets, ham stores.
Get on the air. Be visible. It is fun, and you never know when or
where the next story is coming from.

11. Have FUN. This is a hobby. Don't worry about small things,
just the things that you can control.

The technical advisor for NorCal is Wayne Burdick. He not only designs
the club projects, even more importantly, he helps those with problems get
their rigs on the air. I know of many first time builders that Wayne has spent
hours of his time helping. Every club needs someone to help those who are
stumped with a problem. WE WANT TO ENCOURAGE BUILDING!! NorCal does it
by providing kits at a low price, technical help, and by providing a monthly
place for members to show off what they have built. You know there are
2 ways to show off your gear in ham radio. One is to do it on the air,
and the other is to take it to a meeting and let everyone eyeball it. Wayne
also helps me with advice on QRPP technical matters.

QRP Clubs need to have a philosophy or a purpose in being, or it will die.
Jim Cates said it well when he stated that a club must provide something
for every member, or there will be no members. We use a strange approach, in
that NorCal has no officers, agenda, or official business meetings. Every

member is equal. If some one has an idea he does it. Say that some member wanted to start a 75 meter NorCal net at 3.980 on Sunday evenings at 9:00 local time, he would announce it and do it. That is how it works. Jim and I both believe that we don't have time to feed egos, either our own or anyone elses. NorCal's philosophy or purpose is to have fun. That is it. We accomplish this with yearly club projects, monthly meetings, and small get togethers. QRPp is published to help the members of the club communicate and to give them something physical that they can have.

Club projects are done to bring the members together. It is far more fun to build something that a friend has built than to go it alone. First of all you have a source of help, and secondly, it is neat to get ideas on how to do projects. So far, I would say that at least half of our members have built or purchased a NorCal 40 or Sierra kit. Many have also built the digital display. This was all made possible by the club. Club projects do not have to be original designs either. You can take a design from any of the published ones and put together kits of parts. Order the parts in quantity, and you will all save. For example, let's say that you wanted to do a parts kit for the Neophyte receiver. All that you have to do is make a list of the needed parts, order them and then distribute them. Far circuits makes the boards, and it is easy to do.

Basically that is what I know about clubs. If you have specific questions, send me email and I will try to answer them. 72, Doug, KI6DS

From: raymonda@EBay.Sun.COM (Ray Anderson)
Date: Fri, 17 Jun 1994 14:32:40 +0800
Subject: Re: Resistive Attenuators

<daniel%pandora@csar.csah.com> writes:

>Hi,

> Can anyone tell me how I can design a resistive attenuator for 50
>ohms. I want to drop 4-5 watts to about 1-2 watts into 50 ohms so I can
>drive a MOSFET amplifier. I don't want to overdrive it with 4-5 watts. Is
>there an easy way to do this?

... paragraph deleted ...

>Daniel

Daniel,

First figure out how many dB of attenuation you need.

$$\text{dB} = 10 \times \log P_1 / P_2$$

$$\text{so: dB} = 10 \times \log (2\text{Watts}/5\text{Watts})$$

$$\text{dB} = 10 \times \log (.4)$$

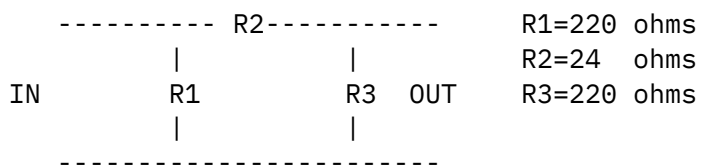
$$\text{dB} = 3.97 \text{ dB} \quad (\text{Call it } 4 \text{ dB})$$

Now calculate your resistor values:

1. Either calculate the #'s from equations
2. Look up in a table
3. Let your computer crunch the numbers.

Real engineers choose option #3 these days :)

For a 50 ohm 4 dB pi attenuator:



Since you are driving it with 5 watts (+37 dBm) the computer tells us that the resistors will be dissipating the following powers:

R1: 30.5 dBm (1.12 watts)
R2: 31.6 dBm (1.4 watts)
R3: 26.5 dBm (446 mw)

So figure on at least 2 watt resistors for R1 and R2 and at least 1W for R3 .

73's de WB6TPU

Ray (raymonda@uranium.ebay.sun.com)

From: raymonda@EBay.Sun.COM (Ray Anderson)
Date: Fri, 17 Jun 1994 14:57:05 +0800
Subject: Re: construction methods

>> I would question very much the use of wire wrap in marine gear. The
marine
>> environment is not very friendly to electronics and a mechanical rather
>> than a soldered connection might be prone to salt and moisture finding
>> their way between the terminal and the wire. At least that's my
opinion.
>> Hmmm, maybe the manufacturers do this on purpose in order to do
periodic
>> 'costly' repairs...

>I questioned it as well, but his response was that done properly,
wire-wrap
>was superior to soldered connections and withstood the corrosive effects
of
>being out on the high-seas. We were talking about commercial maritime
>HF gear, not the stuff you get for pleasure boating.

Supposedly, when wire-wrap is done properly, the sharp corners of the
wire-wrap post bite into the wire creating a gas tight metal to metal
contact. Since there is no air or moisture between the wire and the post
it can't corrode. Industry experience over time with millions of wire-wrap
connections seems to bear this out. (I've never seen a wire wrapped
commercial
radio though.)

73's de WB6TPU
Ray (raymonda@uranium.ebay.sun.com)

From: g3rjv@gqrp.demon.co.uk (George Dobbs G3RJV)
Date: Fri, 17 Jun 94 23:40:02 GMT
Subject: G3RJV Away

To QRP emailers.....
I will be away at the Hamvention in Freidrichshafen [largest in Europe]
from June 20 - July 2, so please save mailings until after that date.

Another interesting item at least to me!
I have been invited to speak at the South East Asian QRP Convention at
Kuching in Sarawak at the end of November and they are paying!
I did not say no!
I believe that W1FB is joining me.
Hope to take the QRP PLUS at get 9M8 active on QRP
.....please no offers to carry my bags...I have had better offers than
that.

72

- - -

-

George Dobbs G3RJV

"It is vain to do with more,

G-QRP Club

what can be done with less."

- - - - - William of Occam (1290-1350)

From: sehneg@austin.ibm.com (Sehne)
Date: Fri, 17 Jun 94 18:03:41 -0600
Subject: Increased sensitivity of SWR meter

I recently rebuilt the SWR meter portion of an MFJ matchbox which I
intend
to use primarily with my QRP rigs. Unfortunately the sensitivity is very
poor at powers of <5W. The input transformer is a toroid with the primary
being a screw through the center of the toroid & the center tapped
secondary several turns of #30? wire. Can I increase the sensitivity by
just adding more windings to the secondary, or is there a better
approach.

I'm really hurting for a good way to match my antennas to various QRP
bands
without it. Any advice is greatly appreciated. Thanks, de N2KTY/qrp
(Gary)

From: xenolith@halcyon.com (Kevin Purcell)
Date: Fri, 17 Jun 1994 16:24:12 -0700
Subject: Re: Resistive attenuators

I took the liberty of modifying this diagram:

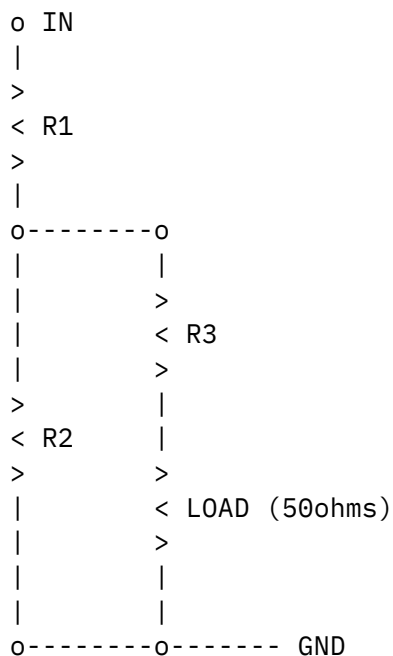
>
>
> R1 R3
> IN ----/\ /\ /\ /\ /-----/\ /\ /\ /\ /----- OUT to load
> |

```
>                                     >  
>                                     < R2  
>                                     >  
>                                     |  
>      -----  
>      ----  
>      -
```

```
>R1 = R3 = 16.6 ohms, R2 = 66.9 ohms. I would suspect 2W (metal oxide)
>resistors
>should suffice for all, but this should be analyzed more carefully.
```

Just use Ohms law (you know the input voltage derived from the output power of the TX) and the impedance of the load (50 ohms) which is connected to the output to ground.

You will get the following paragraph if you redraw the T as a voltage divider (for that is all it is -- though the values have been carefully choosen):



So you have $((R3 + 50) \parallel R2) + R1$ is the resistance seen by the input.

Calculate voltages around the network using ohms law.

Calculate powers disipated around the network.

Spec the resistors (most of the power will be dropped in R2, less in the

R1

and much less in R3).

So you see those attenuator tables aren't magic, just high-school physics!
The derivation of the pi network is an exercise for the student (go on DO
IT!)

73

Kevin Purcell, N7WIM / G8UDP

xenolith@halcyon.com

"Organising programmers is like herding
cats"

(206) 649-6489

From: Bensondj@aol.com

Date: Fri, 17 Jun 94 21:43:55 EDT

Subject: 30-40 troubleshoot

>The manual says secondary is to be "closly wound" . Does this >mean
>to spread out the primary windings over the whole coil , but >group
>the secondary tightly together ?
>Also the kit came with a piece of (single)ribbon cable but I >dont
>see where it is supposed to be used.

Yes- wind the primary around the entire winding. The secondary is
close-wound over the primary at one end of the winding., i.e., tightly
grouped together. No need to be obsessive about "close", though.

Last paragraph on manual p. 10: the secondary of T1 is wound using the
length of single ribbon cable. Hope this helps- 72/73

Dave- NN1G

End of qrp-digest V1 #12

From ab4el.com Thu Jun 23 15:14:10 1994
From: Brad=Staff%PC=SW%PCPD=Hou@bangate.compaq.com
Subject: recommendations sought

I am looking for recommendations on transceivers, keyers, and keys. I would like to keep the station small, rugged, and light enough so I can take it along on hikes, but most operation will be from home.

Also, what are the "best" daytime and nighttime bands for QRP operation in these low-sunspot days?

72,

Brad
aa8if@bangate.compaq.com

From ab4el.com Tue Jun 21 07:42:27 1994
From: C=BAILEY%IS%211EIS@ANG193FS.ang.af.mil
Subject: RESULTS; KEYS EMULATIONS

Thanks to the following who responded with their preferences.

Chuck, K5FO - Uses V6, Curtis with dot/dash emulation.
Jim, KA0IQT - Uses V6, Curtis with dot/dash emulation.
Mark, NK8Q/3 - Uses MFJ, Iambic.

I switched from SuperKeyer with dot/dash memory to try Curtis with same memory. It is not an easy switch. I did discover that the letters 'L' and 'Y' are easier to send "squeeze style" using this emulation.

Note for Jeff; If you put the keyer in "Handkey mode" I can try the "sideswiper" style, using my paddles!

72 de Cameron, KT3A. (People using paddles need to use both sides of their brains!)

From ab4el.com Sun Jun 19 14:45:04 1994
From: Tom Kerns <tkerns@seaccd.ctc.edu>
Subject: Simple, small paddles?

Folx -

I've mounted a straight key on the side of my MFJ 9020, in the interests of having everything in one package. But I don't really like straight keys, and would prefer a paddle mounted right on the case of my

9020, maybe on the side somehow.

Does anyone know of any simple paddles, either pre-made, in kit form, or just made from scratch, that I could use for that purpose? It wouldn't need to have the keyer in it, since I can get that from MFJ and plug it in the back. I really like the idea of having the paddle attached right on the box, because the box itself could provide the stability for the paddle, and I wouldn't need a paddle with a heavy base (I'm trying to conserve weight as well as space).

Has anyone tried such a thing? You'd want the paddles to be small, and maybe even easily disassembled, so you could pack the paddle parts separately, to avoid them being damaged in transport.

Ideas?

- Tom AA7ZG

Dr Tom Kerns, Professor of Philosophy
North Seattle Community College
9600 College Way North
Seattle, WA 98103
email: tkerns@seaccd.ctc.edu
voice/voicemail: (206) 528-3827
FAX: (206) 527-3734
Amateur radio callsign: AA7ZG
Packet: AA7ZG @N7DUO.WA.USA.NA

Fly Fishing is The Answer.

From ab4el.com Mon Jun 20 15:01:24 1994
From: "H. Ward Silver" <hwardsil@seattleu.edu>
Subject: Re: Simple, small paddles?

For a FB homebrew paddle, use a chunk of hacksaw blade. Depending on the way you want it mounted...side mount sounds interesting...use small blocks of wood glued together as the body and #6 or #4 round-head wood screws as the contacts. A piece of sponge, slotted and wedged over the hacksaw blade, serves as a damper to keep it from vibrating too much. This all costs about 99.5% less than a regular paddle that desperately wants to be mounted on a horizontal surface.

GL, Ward N0AX

From ab4el.com Mon Jun 20 18:11:35 1994

From: Jeffrey Herman <jeffrey@math.hawaii.edu>
Subject: Re: Simple, small paddles?

Tom talks about using a hacksaw blade for a keyer paddle. Now, before you connect this wonderfully simple paddle to your electronic keyer try using it as-is for awhile - this is called a sideswiper - very popular back in the 30's, and faster than a straight key. How do you send code with it? No one side is pushed twice! The dahs and dits alternate from side to side; for example, a 'B' = -... would take 4 side-to-side strokes: riiiiight left right left right. It'll take a while to get used to.

.73,
Jeff NH6IL
jeffrey@math.hawaii.edu (new!)

From ab4el.com Mon Jun 20 19:45:27 1994
From: Craig LaBarge <74740.3166@CompuServe.COM>
Subject: Re: Simple, small paddles?

> I've mounted a straight key on the side of my MFJ 9020, in the
> interests of having everything in one package.

I'd be interested in hearing how this works out. I considered mounting a straight key on my MFJ9030, but the way I pound brass, I was afraid I'd be knocking the VFO all over the place.

> Does anyone know of any simple paddles, either pre-made, in kit
> form, or just made from scratch, that I could use for that purpose?
> [Stuff deleted]
> Ideas?

I've been thinking about experimenting with some small snap-action microswitches that I have laying around. I've had a couple of people tell me that they work pretty well as paddles, especially the ones with the long levers which extend beyond the body of the switch. There was a "Hints and Kinks" article in QST within the past year which described portable paddles fashioned from microswitches. Also, a past QST article on motorcycle mobiling mentioned using microswitches attached to the handlebars as paddles.

I was toying with the idea of mounting two microswitches on a small piece of perfboard and mounting the assembly to the rig with double-side foam tape or something. Might be worth a try. Certainly would be cheap enough!!

Good luck,

Craig

```
=====
| Craig LaBarge WB3GCK/QRP          |
| Email: 74740.3166@CompuServe.com  | Just say no to QRO! |
| Packet: WB3GCK@WB3FYL.#SEPA.PA.USA.NA |
=====
```

From ab4el.com Mon Jun 20 22:06:54 1994
From: James Speer <F_SPEERJR@ccsvax.sfasu.edu>
Subject: Re: Simple, small paddles?

WB3GCK writes:

>I was toying with the idea of mounting two microswitches on a small piece of
>perfboard and mounting the assembly to the rig with double-side foam tape or
>something. Might be worth a try. Certainly would be cheap enough!!
>
>Good luck,
>
>Craig

I've heard a two-button mouse works pretty well, too.

Jim
K5YUT

From ab4el.com Tue Jun 21 10:48:29 1994
From: Gene Marshall <genem@hpswtgm.cup.hp.com>
Subject: Re: Simple, small paddles?

Craig writes:

> I've been thinking about experimenting with some small snap-action
> microswitches that I have laying around. I've had a couple of people tell me
> that they work pretty well as paddles, especially the ones with the long levers
> which extend beyond the body of the switch.

After reading the QST article, I built a set of these paddles (with long levers) into a plastic Kodak film can (the small ~2" long can). I carved out a small piece of packing foam to keep the u-switches (glued back-to-back) centered in the can. To operate, I just uncap the can and pull them out about half way to expose the leavers.

It sure is small and light for backpacking, but operating is 'different' than the Bencher - that's for sure!

You'll have to get used to the different feel, mainly pulling your

fingers further away than you would on a key. It's great for a QSO here and there, but don't hurry to make one of these for field day!

73,
Gene

--
+-----+
|Gene Marshall \-\-\ email: genem@cup.hp.com |
|Hewlett Packard Co., MS 42UN | Tel: 408/447-5282 |
|Software Svcs & Tech. Division (SST) | ___o Fax: 408/447-5039 |
|11000 Wolfe Road L^\<._ AA6IY@N6LDL.CA.USA.NOAM |
|Cupertino, CA 95014 ()/ () CompuServe: 75060,260 |
+-----+

From ab4el.com Tue Jun 21 09:13:53 1994
From: bcieslak@mkelan5.remnet.ab.com (Brian Cieslak)
Subject: Solar Panels

I recently read a message of some one who was unig solar panels and a marine baterry for FD...but I erased it to quickly.....

Where Can I find reasonably priced solar panels...What configuration would I need to drive say an argonaut or HW-8 for FD,

73,
Brian - AE9k

From ab4el.com Mon Jun 20 10:49:37 1994
From: JDuffy@aol.com
Subject: St. Louis QRP Society

Anyone for the St. Louis QRP Society on this list? Used to be a member and would like to join again.

Duffy de WB8NUT

From ab4el.com Tue Jun 21 15:24:28 1994
From: "Kearman, Jim" <jkearman@arrl.org>
Subject: Straight keys

QRPers seem to use straight keys more often than the average ham. I have a couple of extra straight keys:

1. Brown Brothers, black wrinkle base, red Navy knob.

2. Unknow mfr, black navy knob, sloping black wrinkle base. The base is hollow, containing a leaf switch, so there are no exposed terminals. You could probably sandwich a small transmitter in here.

\$25 each + shipping

Jim Kearman, KR1S
jkearman@arrl.org

From ab4el.com Wed Jun 22 10:27:18 1994
From: "DONALD A. COLEMAN (EXT. 2850)" <DACOLEMAN@fair1.fairfield.edu>
Subject: Re: Straight keys

Guess idol hands make work for the devil.

I think qrpers use straight keys more often than your average ham because, more often than not, slow sending, the specialty of straight keys for most of us, is more reliable for effectual transfer of information. I believe there's a theorem in physical information theory applicable to this, but I'm not a physicist.

72.909335

Don Coleman, W1VOQ

From ab4el.com Wed Jun 22 15:00:52 1994
From: "H. Ward Silver" <hwardsil@seattleu.edu>
Subject: Re: Straight keys

> Guess idol hands make work for the devil.

>

> I think qrpers use straight keys more often than your average ham because, more
> often than not, slow sending, the specialty of straight keys for most of us, is
more reliable for effectual transfer of information. I believe there's a
> theorem in physical information theory applicable to this, but I'm not a
> physicist.

>

> Don Coleman, W1VOQ

I would attribute the many straight key users to the simplicity of manual CW. The QRP crowd appreciates minimalist radio and there's something about hanging a microprocessor and 64k of static RAM on a 100mW xmtr that just "don't seem right".

Regarding QRS at QRP, I find that if you send at or above 20wpm, even when very weak, the receive rate is better because more "symbols" get through

during each period of good reception. Then, with a couple of repeats, and the power of the 25watt, glucose-powered computer between the ears, one can fill in the blanks pretty effectively. Slowing down to 5wpm or less doesn't seem to work as well for me.

73, Ward N0AX

From ab4el.com Wed Jun 22 15:07:35 1994
From: "Kearman, Jim" <jkearman@arrl.org>
Subject: Re: Straight keys

> Guess idol hands make work for the devil.

There is a hidden message here, but I'm not getting it....

73

Jim

From ab4el.com Thu Jun 23 12:12:30 1994
From: "Kevin Anderson" <GGANDERSON@Augustana.edu>
Subject: Re: talk/ytalk (was wired radio)

> *** P R O P O S A L ***
>
> With all the the talk about wired "wired radio" why don't we all just
> agree to go to a specific channel on the IRC???
>
> Call it QRP or CQ or whatever...
>
> I personally would rarely get on it because our local club supports that
> internet world-wide conversation bridge on our packet BBS... and after
> you use it once or twice, it's really kinda boring.
>
> 73 =paul= wb8zjl

For those of us on Unix boxes, we could always try using talk or ytalk (some sites, such as mine, have added ytalk, a more-than-two version of talk). Finger the person first to see if they are logged in, then try talk their-address. I'm not always logged in my unix computer, but if I am, I'm kla@helios.augustana.edu for any who care. To use ytalk, just ytalk address address address....

IRC I understand is a bandwidth waster of inet. Some of my students have used it, but I haven't yet, and we basically discourage it for users of our unix box.

73 de kevin, kb9iua

From ab4el.com Sat Jun 18 20:09:06 1994
From: B61395@awtims.fe.anlw.anl.gov
Subject: Thanks!

Someone recently mentioned CW Crystals on the net (Sorry -- don't recall who it was now). Anyway, I had tried to order some xtals from them over a year ago, using the same address I had used previously, but all correspondence was returned by USPS. Also no luck with Directory Assistance. Anyway, I sent the gentleman a note asking for the current address of CW Crystals, and today I received, via USPS, a price sheet and order form direct from CWC. Either that is a very weird coincidence, or someone out there was very thoughtful...and considering the prompt reply, it probably cost them a telephone call too! Thanks! Thanks! What a great group! (Just wish I could remember who it was...) 73, Bill, KR8L/7 (wparmley@anl.gov)

From ab4el.com Mon Jun 20 14:49:44 1994
Subject: Re: Thanks!
From: Grover Cleveland <groverc@gvgadg.gvg.tek.com>

Bill,

Could you please send me the address of CWC?

thanks,

Grover

WT6P

From ab4el.com Fri Jun 24 18:09:33 1994
From: Mike.Czuhajewski%hambbs@wb3ffv.ampr.org (Mike Czuhajewski)
Subject: Variable coils

Argh.....I would NOT recommend using an iron nail as the core for a variable coil unless you are working at DC or audio! If you are working with RF, use only core materials appropriate to the frequency. I have not done any experiments (yet--but I might!) with iron nails as cores, but I very seriously doubt they would work "properly" and give anywhere near optimum results. (Consult your favorite electrical engineer--ask him/her if iron is suitable for RF cores, but put on some a flak vest before you ask!) 73 de WA8MCQ.....and yes, I *WILL* do

the experiments, since I'm going to do some coil experiments this weekend anyhow....

--

Mike Czuhajewski, user of the UniBoard System @ wb3ffv.ampr.org
E-Mail: Mike.Czuhajewski%hambbs@wb3ffv.ampr.org
The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA
Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

From ab4el.com Fri Jun 24 21:40:56 1994
From: lbrunson@rodgers.rain.com
Subject: Re: Variable coils

Mike Czuhajewski comments:

| Argh.....I would NOT recommend using an iron nail as the core for a
| variable coil unless you are working at DC or audio! If you are
| working with RF, use only core materials appropriate to the frequency.

I agree. I seem to remember that brass slugs instead of ferromagnetic material can also help to change the inductance of an inductor. Of course, the inductance decreases instead of increasing with the insertion of the slug. It does make a variable inductor, however.

Lowell Brunson (503) 681-0417
Rosenet: lbrunson@roland.co.jp
Internet: lbrunson@rodgers.rain.com (preferred)
lowell@teleport.com
Packet Radio: KC7DX@K7IQI.OR.USA.NA

From ab4el.com Fri Jun 24 23:42:32 1994
From: James Speer <F_SPEERJR@ccsvax.sfasu.edu>
Subject: Re: Variable coils

>

>Argh.....I would NOT recommend using an iron nail as the core for a
>variable coil unless you are working at DC or audio! If you are
>working with RF, use only core materials appropriate to the frequency.
>I have not done any experiments (yet--but I might!) with iron nails as
>cores, but I very seriously doubt they would work "properly" and give
>give anywhere near optimum results. (Consult your favorite electrical
>engineer--ask him/her if iron is suitable for RF cores, but put on some
>a flak vest before you ask!) 73 de WA8MCQ.....and yes, I *WILL* do
>the experiments, since I'm going to do some coil experiments this
>weekend anyhow....

>--

So...get the appropriate slug-tuned form, glue the slug to the shaft of a cheap

"student" micrometer caliper, and _instant precision tuning_!

Jim
K5YUT

From ab4el.com Sat Jun 25 00:39:42 1994
From: stark <mswmod@sage.unr.edu>
Subject: Re: Variable coils

Well now, what would happen if you mounted a space (air) would
coil so that you could compress or stretch the turns?????

73's, Ron

.....KU7Y.....
.....Monte "Ron" Stark.....
.....Sun Valley, Nevada.....

From ab4el.com Sat Jun 25 03:04:47 1994
From: jeffrey@math.hawaii.edu (Jeffrey Herman)
Subject: Re: Variable coils

Ron suggests varying the inductance by stretching or compressing: how
about using a Slinky (tm)? An all purpose variable inductor for
audio to daylight...

Okay, since I'm the one who started this topic here's where I got
the idea from: While in a RS store yesterday I paged through one
of their 'Engineer's Mini-Notebook' covering simple homebrew
rcvrs and xmtrs. One of the projects was an MCW xmtr for the
AM bcst band; all their inductors in that book are wound on plastic
drinking straws. They suggested one could change the xmt freq by
inserting a nail into the straw inductor. So there you go.

All the projects in that book call for a 555 IC; those go for about
\$1.50 I think at RS.

Jeff NH6IL

From ab4el.com Sat Jun 25 03:30:45 1994
Subject: Re: Variable coils
From:

>Well now, what would happen if you mounted a space (air) would
>coil so that you could compress or stretch the turns?????
>

Another old technique (an awful lot of this stuff was known by the '20s) is to use two coils in series (or parallel), one fixed and one rotatable. The rotatable one can either be inside or next to and in line with the fixed one, and as it's rotated the coupling goes from maximum (coils aligned) to minimum (coils at 90 degrees), corresponding to maximum and minimum inductance. Mechanically this is much more stable and repeatable than turn scrunching. I don't know how the inductance will vary as the coil is rotated, but I suspect it starts dropping gradually and falls off quickly at the end. For our purposes, we might want to limit the rotation to a few degrees or tens of degrees. The advantage of this method over a tuning slug is that the required movement is a rotation (easy) rather than a linear displacement.

BTW, if you rotated the coil a full 180 degrees the coils would fully oppose, giving an even lower inductance. Same principle as a non-inductive wirewound resistor.

73,
Mike, KK6GM

From ab4el.com Fri Jun 24 04:06:09 1994
From: Jeffrey Herman <jeffrey@math.hawaii.edu>
Subject: variable inductors

Gang: Here's a cute idea for the experimenters among us. As variable caps become more difficult to obtain some might want to consider varying L rather than C to change F. Wind your inductor on a plastic straw and find a iron nail that will snugly slide in and out of the straw. I'll leave the rest to your imagination...

.73,
Jeff NH6IL

From ab4el.com Fri Jun 24 14:41:41 1994
From: lbrunson@rodgers.rain.com
Subject: Re: variable inductors

Jeffrey Herman proposed:

| Gang: Here's a cute idea for the experimenters among us. As variable
| caps become more difficult to obtain some might want to consider
| varying L rather than C to change F. Wind your inductor on a plastic

| straw and find a iron nail that will snugly slide in and out of the
| straw. I'll leave the rest to your imagination...

I have been playing with similar ideas (but for short antennas not a VFO yet). In fact, I use a "slug tuned" inductor on a portable helically wound tapered pitch 40 meter vertical.... A version was published in 73 magazine and a discription was posted to the QRP mailing list about a year and a half ago.

My modifications included winding the vertical with a tapered pitch... close winding at the top with 1 turn per 10 inches at the base around a piece of 1 inch PVC. I made a capacitive hat from a hose clamp and two pieces of welding rod bent in a Z fassion in the middle so the hose clamp would hold them. Of course, the Q of the antenna was pretty high, so I couldn't work accross the whole band without an antenna tuner. So, (now the variable inductor part) I tuned the antenna by taking another piece of PVC that would slide over the outside of the antenna and wound about 12 turns (doesn't matter very much how many) of wire around it and shorted the ends. I tied a string to it and looped the string through a PVC T I put on the top (I could have used a plastic ring attached to the hose clamp or something). Now I just raise and lower the shorted turns like a flag. The more it encloses the close pitch winding at the top, the lower the inductance and the resonate frequency of the antenna rises.

I have thought about variations of this like:

Winding a dipole and having two sets of shorted turns that ran out towards the ends and hooked them up like a curtain rod.

Once I used a piece of copper tubing inside the PVC element. It worked too but didn't change the frequency as much as the multiple turns.

Maybe winding the bottom half of the antenna with coax and using the shield of the coax as the conductor (instead of the wire that was used in the original rendering. This would reduce the copper losses of the antenna and help to improve its effecency.

Motorize the movement of the shorted turns.

Other variable inductor might be a shorted "swinging loop". Or shorting one side of a goniometer (Is that the right name/spelling? It was a coil wound in the shape of a sphere with another coil inside it wound in the same manner i.e. the ends of the coil had a smaller diameter than the center of the coil. The inside coil was able to rotate on its axis to make the two coils planar or perpindicular, thus adjusting the amount of coupling between them. Sorry, I just can't draw that in ASCII, ask Daniel to.)

The advantage of the above variable inductors is that they do not have a ferromagnetic core which might saturate with high power levels. Of course, there will probably be some IIR losses due to the shorted turns, but it seems to me that most tuneable mobile whips short the unused turns on the inductor. I think it is a better solution than using a mechanical connection to short the coil (like a roller inductor) because I just don't trust mechanical connections over time.

OK, you RF engineers out there, what are the bad side affects of this?

Lowell Brunson (503) 681-0417
Rosenet: lbrunson@roland.co.jp
Internet: lbrunson@rodgers.rain.com (preferred)
lowell@teleport.com
Packet Radio: KC7DX@K7IQI.OR.USA.NA

From ab4el.com Fri Jun 24 15:26:27 1994
From: lhalliday@creo.bc.ca
Subject: Re: variable inductors

Hi Jeff,

>Gang: Here's a cute idea for the experimenters among us. As variable
>caps become more difficult to obtain some might want to consider
>varying L rather than C to change F...

Funny you should mention variable inductors; I measured a permeability tuning unit last night that I found in a box of miscellaneous solid-state junk. The unit has three cores that move in and out of their coils, with a smooth worm drive (about 6 turns) to run them back and forth.

The inductances look reasonable - the coils all measured the same, .1 to .15 uH. I used the time-honoured way of shunting them with a known value capacitor and measuring the resonant frequency. If anybody wants to work it out, the resonant frequencies were 11.8 and 14.2 MHz, with a 1200 pF silver mica capacitor. The cores look like ferrite and the resonance was quite sharp, suggesting useful Q. I think the thing was part of an FM tuner...

73 from Burnaby,
laura VE7LDH who actually used a slide rule for the
aforementioned LC resonance calculations

From ab4e1.com Fri Jun 24 16:01:23 1994
Subject: Re: variable inductors
From: "John F. Woods" <jfw@ksr.com>

> laura VE7LDH who actually used a slide rule for the
> aforementioned LC resonance calculations

Now *that*'s a QRP computer.

From ab4e1.com Fri Jun 24 17:28:13 1994
From: raymonda@EBay.Sun.COM (Ray Anderson)
Subject: Re: variable inductors

>> laura VE7LDH who actually used a slide rule for the
>> aforementioned LC resonance calculations

>Now *that*'s a QRP computer.

But is it connected to internet??

Ray WB6TPU
raymonda@uranium.ebay.sun.com

From ab4e1.com Wed Jun 22 01:31:48 1994
From: kaul@news.nbc.com
Subject: w6rcl/hh2 Haiti

SLUG	SHOW	WRITER	MODIFIED kaul	TIMING	LC
		kaul	Wed Jun 22 01:27 1994	READY 0:29	12

W6RCL/HH2, Port Au Prince, is on the air on SSB only with longwire which loads from 160-to-10. QRO=100w, but QRP on request. Noise levels on 160-80 pretty high and foreign broadcast bad on 40. From 0200 GMT to 0300 GMT on 6/22 two doz stations worked around the USA, Mexico, E. Europe. Will keep looking for low power stations who need Haiti. QSL to home call. I will QSL to all via the bureau after I return and get cards printed. I'm trying to find and buy a manual key --- am hearing lots of CW at 7040 and 14060.

72, 73 de alan w6rcl, Internet: kaul@news.nbc.com

From ab4e1.com Mon Jun 20 10:28:03 1994

From: "DONALD A. COLEMAN (EXT. 2850)" <DACOLEMAN@fair1.fairfield.edu>
Subject: Re: When did ground become blase'?

People became "blase" about ground when dipoles came into more extensive use, as you've already suggested; also the counterpoises--people's own and MFJ, etc.--came to be used more often because of the difficulty of obtaining good grounds in apartments, condo's, etc. But you need a ground lug for a counterpoise too. I'm not blase about grounds; I still believe in them.

72.909443

Don Coleman, W1VOQ

From ab4el.com Tue Jun 21 23:13:02 1994
From: James Speer <F_SPEERJR@ccsvax.sfasu.edu>
Subject: wired radio

N6KR wrote:

>I have threatened to call CQ on the Internet before, and now I've finally
>done it. Respond as you see fit.

Good idea!

>The net has advantages: no propagation problems, stored messages that
>allow delayed response, easy interface with the shack computer :) etc.

DX is not much of a challenge, though.

>Of course, ham radio is fun precisely because of the vagaries of
>propagation. But I wouldn't mind kicking off a discussion of Wired Ham
>Radio (WHR) and where it fits in a continuum that might include:

>
> wireless ham radio
> repeaters
> packet radio
> E-mail
> qrp@think.com

For me, the availability of the net means that packet radio is not very interesting. Instead, as a ham, I'm attracted to the simplest and least high-tech modes of communication. Home-brewed qrp cw. I do use repeaters, but only as utilities, to meet others who share my interests in qrp, and as a cheap alternative to cellular phones. But what makes ham radio distinctive is practicing that hard-won skill, cw, and vying with myself to do as much as possible with as little as possible.

Wonder if this thread might turn out to be useful to the long-range planners

written up in the current issue of _QST_?

72!
Jim
K5YUT

From ab4el.com Wed Jun 22 07:20:24 1994
From: Brad Mitchell <bmitchel@CBA.Kodak.COM>
Subject: wired radio

Well, I was on packet, and a fellow showed me a node that he checks into for chatting.

It seemed rather common till he told me all sorts of guys were checking in from internet..

How do we get there? , and could this go interactive here? Wow, we could really get some ideas going that way. Only problem is, it might get in the way of doing real work. I can see it now.. please qrx boss,,,,, oops..

73 Brad WB8YGG

From ab4el.com Wed Jun 22 02:43:10 1994
From: Jeffrey Herman <jeffrey@math.hawaii.edu>
Subject: Re: wired radio

Ah, 'homebrew qrp cw' - it warms my heart to hear that phrase. Sometimes I think we know a secret that the rest of the amateur community doesn't. It saddens me to read all the anti-CW articles on r.r.a.policy - I try to defend CW on there, and also speak of homebrew qrp on r.r.a.misc but my words fall on deaf ears (or rather closed eyes since it's on UseNet).

We are lucky indeed to have inet qrp for our fireside chats and to continually fuel our love for this wonderful aspect of ham radio.

This just put me in the mood to build something!

Keep the soldering iron hot and the fingers cool, Gang.

.73,
Jeff NH6IL (ex WA6QIJ)

From ab4el.com Wed Jun 22 11:24:39 1994
From: "DONALD A. COLEMAN (EXT. 2850)" <DACOLEMAN@fair1.fairfield.edu>
Subject: Re: wired radio

GM, OM'S, OG'S, etc.

I think it would be a wonderful idea to institute some means of calling *cq* on the Internet. But how could it be done?

There are, I suggest, countless legitimate (by which I mean occasions of giving help to many people at once) for calling *cq* here. For instance, I'm looking for a Microsoft BASIC manual and can't find one anywhere.

72.4994188

Don Coleman, W1V0Q

From ab4el.com Wed Jun 22 11:53:02 1994
From: lemoine@sicom.com (Dana Lemoine)
Subject: Re: wired radio

K5YUT wrote:

>

> For me, the availability of the net means that packet radio is not very
> interesting.

So true, so true. With the net so accessible, and with the proliferation of land line BBS's over the years, it has been hard for me to get excited about packet as well.

But then came the SAREX missions. I stand on the roof and listen for an astronaut's voice and all I hear is data, data, data. If you want a QSL card from space, you almost gotta have packet. I don't currently have packet capability, but I sure would like to tell my kids that I talked to an astronaut. :>

> Instead, as a ham, I'm attracted to the simplest and least
> high-tech modes of communication. Home-brewed qrp cw.

Yes, it is a logical extension of the tin cans and string from when we were kids, and those old hokey RS walkie talkies.

72!

Dana
KB7WSW/AE

From ab4el.com Wed Jun 22 15:43:56 1994
Subject: Re: wired radio
From: (Michael Silva)

>

>Yes, it is a logical extension of the tin cans and string from when we

>were kids, and those old hokey RS walkie talkies.

>

My first w-t's were from Sears, then I saved up \$40 and got a 2-channel, 100mW jewel from Lafayette. They actually worked. Has anybody else noticed that none of the cheap 49MHz stuff works these days? I'm sure walkie-talkies are what turned me towards small, simple (no, make that elegantly concise) radios.

73,

Mike, KK6GM

From ab4el.com Wed Jun 22 16:27:28 1994

From: dgf@netcom.com (David Feldman)

Subject: Re: wired radio

>From owner-qrp@Think.COM Wed Jun 22 13:23:05 1994

>Return-Path: <owner-qrp@Think.COM>

>Received: from mail.think.com by mail.netcom.com (8.6.8.1/Netcom)

> id NAA15472; Wed, 22 Jun 1994 13:22:50 -0700

>Received: by mail.think.com; Wed, 22 Jun 94 15:43:56 -0400

>Received: from Think.COM by mail.think.com; Wed, 22 Jun 94 15:43:40 -0400

>Received: from witch.witchcraft.com by Early-Bird.Think.COM; Wed, 22 Jun 94 15:43:31 EDT

>Received: by witch.witchcraft.com id AA13275

> (5.65/1.35 for <QRP@Think.COM>); Wed, 22 Jun 94 15:43:03 -0400

>Received: by win.net!ted; Wed, 22 Jun 1994 12:37:39

>X-Mailer: WinNET Mail, v2.11

>Message-Id: <340@ted.win.net>

>Reply-To: (Michael Silva)

>To: QRP@Think.COM

>Date: Wed, 22 Jun 1994 12:37:39

>Subject: Re: wired radio

>From: (Michael Silva)

>Sender: owner-qrp@Think.COM

>Precedence: bulk

>Status: R

>

>>

>>Yes, it is a logical extension of the tin cans and string from when we

>>were kids, and those old hokey RS walkie talkies.

>>

>My first w-t's were from Sears, then I saved up \$40 and got a

>2-channel, 100mW jewel from Lafayette. They actually worked. Has

My Lafayette HA-73 was my prized possession for a long time in the 60's (I was about 9 or 10 at the time, in Sacramento, CA - pre-ham days).

It's case was all metal (aluminum, I suspect) - no plastic - and it was
very well built. It was two channels, and might have been the same
model you are describing!

73 Dave WB0GAZ dgf@netcom.com

From ab4el.com Wed Jun 22 16:42:14 1994
From: "Lyle D. Melton" <lmelton@paul.spu.edu>
Subject: Re: wired radio

How about using the list for initial contact and then email directly
between individuals....Lyle

Lyle D. Melton KC7GT
School of Health Sciences
Seattle Pacific Univ
Seattle Washington
lmelton@spu.edu

On 22 Jun 1994, DONALD A. COLEMAN (EXT. 2850) wrote:

> GM, OM'S, OG'S, etc.
>
> I think it would be a wonderful idea to institute some means of calling *cq* on
> the Internet. But how could it be done?
>
> There are, I suggest, countless legitimate (by which I mean occasions of
> giving help to many people at once) for calling *cq* here. For instance,
> I'm looking for a Microsoft BASIC manual and can't find one anywhere.
>
> 72.4994188
>
> Don Coleman, W1VOQ
>

From ab4el.com Wed Jun 22 17:19:10 1994
From: stark <mswmod@sage.unr.edu>
Subject: Re: wired radio

On Wed, 22 Jun 1994, it was written:

> >
> >Yes, it is a logical extension of the tin cans and string from when we
> >were kids, and those old hokey RS walkie talkies.

> >
> My first w-t's were from Sears, then I saved up \$40 and got a
> 2-channel, 100mW jewel from Lafayette. They actually worked. Has
> anybody else noticed that none of the cheap 49MHz stuff works these
> days? I'm sure walkie-talkies are what turned me towards small, simple
> (no, make that elegantly concise) radios.
>
> 73,
> Mike, KK6GM
>
>

Boy, you can sure tell the new kids on the block! I remember how nice the old Benton Harbor (sp) Lunch Boxes were. Course I was in school and couldn't afford one. And one of them was way up on 2 meters. Who in their right mind would play around that far up anyway?

Local chatting and nets were all done at night on 10 meters.

My first store bought rig was an ARC 5 that I had to convert to 12vdc and build a power supply for.....

Ah, that's the lure of qrp. Still able to drift off into a semi dream world and play like I was a kid again. When I ran 2 watts INPUT on AM on 10meters, all the locals used to hear me working dx and say that the only reason I could do that was because I didn't know any better!

(Gee, do you think that living up on the top of a hill had anything to do with that?)

Gota run and earn my beans....

73's Ron

.....KU7Y.....
.....Monte "Ron" Stark.....
.....Sun Valley, Nevada.....

From ab4el.com Thu Jun 23 08:11:59 1994
From: James Speer <F_SPEERJR@ccsvax.sfasu.edu>
Subject: Re: wired radio

KC7Y wrote:

>Boy, you can sure tell the new kids on the block! I remember
>how nice the old Benton Harbor (sp) Lunch Boxs were. Course I
>was in school and couldn't afford one. And one of them was way
>up on 2 meters. Who in their right mind would play around that
>far up anyway?
>
>Local chatting and nets were all done at night on 10 meters.
>
>My first store bought rig was an ARC 5 that I had to convert to
>12vdc and build a power supply for.....
>
>Ah, that's the lure of qrp. Still able to drift off into a semi
>dream world and play like I was a kid again. When I ran 2 watts
>INPUT on AM on 10meters, all the locals used to hear me working
>dx and say that the only reason I could do that was because I
>didn't know any better!
>
>(Gee, do you think that living up on the top of a hill had anything
>to do with that?)
>
>Gota run and earn my beans....
>
>73's Ron
Don't mean to play the "I'm older and lived a more deprived childhood than you"
game, but I was married and had small kids when I first couldn't afford a
Benton Harbor Lunch Box :-)

My first transmitter was illegal as all &*&. A ten-year-old friend and I made
spark gaps with Model T spark coils, pencil leads, and a piece of bell wire run
out the window for an antenna. Keys were made with tin cans, a wooden block,
and wood screws. Receivers tuned 550 to 1600 khz, and it didn't matter where
you set them! We had to limit operation to late-night hours; the FCC was no
problem, but parents wanting to listen to the radio sure were.

My first legal gear was also ARC5, and there were several years there when I
didn't know there WAS any band besides 40 meters. As you say, we had to build
the power supplies for that gear, and I was always proud of my economical
supply for the receiver filaments: Turns out a 60-watt light bulb in series
with those filaments is just the right dropping resistor, and you had a
combination receiver and table lamp. It even had a lamp shade. AC on amplifier
filaments is not your high-tech prescription for low-noise operation, but with
a few bypass caps, it worked pretty well.

72!
Jim
K5YUT

From ab4el.com Thu Jun 23 09:17:35 1994
From: prvalko <prvalko@vela.acs.oakland.edu>
Subject: Re: wired radio

*** P R O P O S A L ***

With all the the talk about wired "wired radio" why don't we all just agree to go to a specific channel on the IRC???

Call it QRP or CQ or whatever...

I personally would rarely get on it because our local club supports that internet world-wide conversation bridge on our packet BBS... and after you use it once or twice, it's really kinda boring.

73 =paul= wb8zjl

From ab4el.com Thu Jun 23 17:43:37 1994
From: william r finch <wrfin@firefly.prairienet.org>
Subject: Re: wired radio

If anybody wants to try this, telnet to 44.102.48.2 3600 and log in. My daughter (a ham) uses this to chat with some of her friends around the country.

On Thu, 23 Jun 1994,
prvalko wrote:

>
> *** P R O P O S A L ***
>
> With all the the talk about wired "wired radio" why don't we all just
> agree to go to a specific channel on the IRC???
>
> Call it QRP or CQ or whatever...
>
> I personally would rarely get on it because our local club supports that
> internet world-wide conversation bridge on our packet BBS... and after
> you use it once or twice, it's really kinda boring.
>
> 73 =paul= wb8zjl
>
>

Bill Finch ~ | ~
KF9KI ~~ | ~~
Champaign, Il ~ | ~
wrfin@prairienet.org /|\

From ab4el.com Mon Jun 20 19:21:06 1994
From: djwang@sneezy.biophys.upenn.edu
Subject: WV6U

Sorry to waste the bandwidth. My e-mail to Steve Hawkins (WV6U) was bounced. Steve, if you are interested in the principle of MRI, I would recommend an old article in Scientific American. I was trying to explain how it works in the mail but it couldn't get through (seem to have problem with e-mail address ended with .com). I can either find out the issue and publishing date of the article or xerox and fax it to you. 72 de D.J.

From ab4el.com Mon Jun 20 22:00:47 1994
From: btoback@netcom.com (Bruce Toback)
Subject: Re: WV6U

Also, with the same caveat about bandwidth, check out A.K. Dewdney's
The Turing Omnibus for information about MRI.
-- Bruce
KN6MN

From ab4el.com Sun Jun 19 08:41:43 1994
From: James Lyons <jlyons@CAM.ORG>
Subject: XTALS

I used to get very good service from a firm in the UK ...MxKnight Fardahl Ltd., Hardley Ind Estates, Hythe, Southampton SO4 6ZY, England.

They offered a 5 day service for 5.75 pounds per crystal with a minimum order of 10 pounds. They also offered a same day service wat 14 pounds per crystal, no minimum.

I used to get crystals from them MUCH faster than from JAN and excellent quality.

Their last advert was in the August 1993 issue of RadCom so I don't know if they still offer the same service, perhaps George, G3RJV, can tell us if he reads this. I want to order some for myself.

73,

Jim, VE2KN

From ab4e1.com Sun Jun 19 19:26:02 1994
From: g3rjv@gqrp.demon.co.uk (George Dobbs G3RJV)
Subject: Re: XTALS

In message <Pine.3.07.9406190805.C23862-a100000@Altitude.CAM.ORG> James Lyons writes:

> I used to get very good service from a firm in the UK ...MxKnight Fardahl
> Ltd., Hardley Ind Estates, Hythe, Southampton SO4 6ZY, England.

>

> They offered a 5 day service for 5.75 pounds per crystal with a minimum
> order of 10 pounds. They also offered a same day service wat 14 pounds
> per crystal, no minimum.

>

> I used to get crystals from them MUCH faster than from JAN and excellent
> quality.

>

> Their last advert was in the August 1993 issue of RadCom so I don't know
> if they still offer the same service, perhaps George, G3RJV, can tell us
> if he reads this. I want to order some for myself.

>

DE G3RJV

Not only read RadCom but write the QRP Colum for it. I do know McKnight,
but not sure of their current prices.

If anyone is interested I can check it out when I return from Germany at
the beginning of July.

72

--

George Dobbs G3RJV
G-QRP Club

"It is vain to do with more,
what can be done with less."

----- William of Occam (1290-1350)

From ab4e1.com Sun Jun 19 21:04:56 1994
From: James Lyons <jlyons@CAM.ORG>
Subject: Re: XTALS

On Mon, 20 Jun 1994, George Dobbs G3RJV wrote:

> In message <Pine.3.07.9406190805.C23862-a100000@Altitude.CAM.ORG> James Lyons writes:

> > I used to get very good service from a firm in the UK ...MxKnight Fardahl

> > Ltd., Hardley Ind Estates, Hythe, Southampton SO4 6ZY, England.
> >
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> DE G3RJV
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> but not sure of their current prices.
> If anyone is interested I can check it out when I return from Germany at
> the beginning of July.
> 72
>
> --
> -----
> George Dobbs G3RJV "It is vain to do with more,
> G-QRP Club what can be done with less."
> ----- William of Occam (1290-1350)

Of course we know you read RadCom and write in it I meant if your
read my message and now we know you did! I'm going to send them an order
and get their latest price list ... they'll probably have filled the order
by the time you get back.

Enloyed the QSO the other night, BTW congratulations on the proposed trip
out east.

73,

Jim, VE2KN